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ALTURAS RESOURCE AREA

RESOURCE MANAGEMENT PLAN & ENVIRONMENTAL IMPACT STATEMENT

UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

SUSANVILLE DISTRICT

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March 3, 1849

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
District Office
P. O. Box 1090
Susanville, California
96130

IN REPLY REFER TO
1792 (C-020)

Dear Reviewer:

Enclosed for your review and comment are the alternative Resource Management Plans (RMP) and the Environmental Impact Statement (EIS) on the alternative plans for the Alturas Planning Area of Lassen and Modoc Counties, California within the Susanville BLM District. The EIS also fulfills the environmental assessment requirements for livestock grazing management and wilderness recommendations within the planning area.

Large-scale data base maps delineating such resources as commercial timber base lands, vegetative treatment areas, and soil types, etc., are located at the Alturas Resource Area Office. All reviewers are welcome to come into the Area Office to examine specific objectives with on-the-ground locations.

Comments on the plan and the Environmental Impact Statement should be received by this office no later than ________________________, to be considered in the final EIS. Comments received after the established 90 day review period will be considered in the subsequent decision process, in the event the comments are received too late for inclusion in the final statements. Your comments should be returned to:

District Manager
Bureau of Land Management
P. O. Box 1090
Susanville, California 96130

Sincerely yours,

C. Rex Cleary

C. Rex Cleary
District Manager

Enclosure

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Draft Environmental Impact Statement

PROPOSED RESOURCE MANAGEMENT PLAN
FOR THE ALTURAS RESOURCE AREA
LASSEN AND MODOC COUNTIES, CALIFORNIA

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Prepared by
Department of the Interior
Bureau of Land Management
Susanville District

The Bureau of Land Management proposes to implement a multiple use Resource Management Plan on 407,306 acres of public land in the Alturas Planning Area of northeastern California. The objective of the plan is to maintain or improve the overall condition of the public land resources while maintaining the social and economic stability of the local community.

The four alternative plans present a spread between development oriented and protection oriented resource allocations. Environmental consequences of the Proposed Alternative and each of the alternatives are described in an introductory summary and Chapter 4 of the EIS.

Ed Hastey
State Director
California State Office

For further information contact:

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Alturas, California 96101
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Date on which comments are due:

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SUMMARY

This EIS examines 5 alternatives:

I. Maximized Production
II. Balanced Use
III. Maximized Protection (includes Alternative IIIa - No Grazing)
IV. No Action
V. Proposed Alternative

For 11 Management Areas:

1. Tablelands
2. Rocky Prairie
3. Devils Garden
4. North Fork
5. Big Valley
6. Widow Peak
7. Little Valley
8. Pit River Canyon
9. Madeline
10. Mountain
11. East Warners

Dealing with 18 issues:

1. Recreation/OHV
2. Visual Resources
3. Cultural Resources
4. Fish and Wildlife
5. Wetland Riparian
6. Threatened & Endangered Species
7. Timber
8. Fuelwood
9. Soil and Water
10. Minerals/Energy
11. Socioeconomics
12. Fire Management
13. Lands
14. Transportation/Communication
15. Energy
16. Wilderness
17. ACECs
18. Range

Concerning multiple use resource management on 407,306 acres of public land within the Alturas Planning Area.

Eighteen issues were initially identified and used in determining the scope of the plan. Further analysis of each issue disclosed that four of the issues could be addressed outside of the planning process and have been dropped from this planning effort. These include: visual resources, fire management, transportation/communication, and ACECs.

TABLE
Cumulative Summary of Alternatives

	Alternative I Maximize Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management	Preferred Alternative
RANGE	Authorization of up to 81,115 AUMs for livestock. Restoration of up to 32,125 suspended nonuse AUMs. Authorization of 280 AUMs for wild horses and burros. Treatment of 73,290 acres. Increased season of use 30 to 60 days on selected allotments. Development of 24 AMPs. 46 new water developments. 37 miles of new fencing.	Authorization of at least 48,666 AUMs for livestock. Restoration of some part of 32,070 suspended nonuse AUMs. Authorization of 280 AUMs for wild horses and burros. Treatment of 73,290 acres. Increased season of use 30 days on selected allotments. Moderate utilization; heavy utilization on selected allotments. Development of 24 AMPs. 46 new water developments. 37 miles of new fencing.	Authorization of 35,790 AUMs for livestock. No suspended nonuse restored. Authorization of 280 AUMs for wild horses and burros. No treatments. Existing season of use. Light utilization. Development of 10 AMPs. No new water developments. No new fencing. Alt. IIIa - No Grazing No livestock grazing.	Authorization of existing 50,464 AUMs for livestock. No suspended nonuse restored. Authorization of 280 AUMs for wild horses and burros. Treatment of 36,000 acres. Existing season of use. Light to moderate utilization. Development of 10 AMPs. 12 new water developments. No new fencing.	SAME AS ALTERNATIVE II.
FISH AND WILDLIFE	No planned actions on antelope winter range, kidding grounds, sage grouse strutting grounds, or raptor habitat.	No planned actions on antelope winter range and kidding grounds. Restrictions on disturbing activities on sage grouse strutting grounds.	SAME AS ALTERNATIVE II, EXCEPT: - Additional restrictions on potentially disturbing activities on sage grouse strutting grounds.	No planned actions on sage grouse strutting grounds or in antelope habitats. Maintenance of 2.5 miles of riparian habitat.	SAME AS ALTERNATIVE II, EXCEPT fencing of 50 acres of aspen to improve recruitment in Cold Spring and Tule Lake Allotments.

TABLE (continued)
Cumulative Summary of Alternatives

	Alternative I Maximize Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management	Preferred Alternative
FISH AND WILDLIFE (continued)	Juniper thinning to improve browse on deer winter range.	Exclusion of livestock from 20 miles of riparian habitat. Prescribed burning to improve browse in MAs 2, 7, and 10. Exclusion of livestock from 70 meadow habitats. Protection of raptor nest sites. Juniper thinning to improve browse on deer winter range.	- Additional prescribed burning to improve browse in MA 1. - Fencing of aspen to improve recruitment of Cold Spring and Tule Lake Allotments. - Designation of buffer zones around raptor nest trees.	Prescribed burning of 2,600 acres of decadent browse on deer winter range. 36.5 miles of riparian habitat to receive no active management.	
FUELWOOD	Permitted harvest of juniper, oak, mahogany, and all commercial species.	Permitted harvest of juniper and mahogany. Fuelwood cutting directed to designated areas to improve wildlife forage and browse. Fuelwood cutting generally restricted from National Register Sites and Districts, T&E plant populations, 415 acres of Sheep Valley, and Pit River Canyon WSA.	SAME AS ALTERNATIVE II, EXCEPT fuelwood cutting prohibited from all National Register Sites and Districts, T&E plant populations, 28,525 acres of designated wilderness areas, and 5,440 acres of an ACEC.	Juniper fuelwood permits issued on 125,043 acres upon demand.	SAME AS ALTERNATIVE II.

TABLE (continued)
Cumulative Summary of Alternatives

	Alternative I Maximize Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management	Preferred Alternative
TIMBER	Intensive timber management on 4,842 acres of timber base lands. Reinstatement of 7 acres of commercial forest lands into timber base.	Intensive timber management of 4,527 acres of timber base lands with practices modified to provide protection to soils and streams; National Register Sites and Districts; raptor nest locations; and T&E plant populations.	Intensive timber management of 4,638 acres of timber base lands with practices modified to provide protection to soils and streams; National Register Sites and Districts; raptor nest locations; and T&E plant populations.	Intensive timber management on 5,124 acres of commercial timber base lands.	SAME AS ALTERNATIVE II, EXCEPT MA 6, Widow Peak, would be managed under Alternative II to specifically maximize timber production.
CULTURAL	Protection of cultural resource sites within National Register potential.	Protection of high quality sites. Designation of 25 National Register Sites and 10 National Register Districts. Development of 5 cultural Resource Management Plans. Fencing of 4 sites along Horse Creek.	SAME AS ALTERNATIVE II.	Cultural resource values inventoried and protected by law.	SAME AS ALTERNATIVE II.
T & E PLANTS	Minimal protection of sensitive plant species as required by Bureau policy.	Protection of sensitive plant species by fencing or buffer zones. Designation of sensitive plant populations in N. Ash Valley as a Research Natural Area.	SAME AS ALTERNATIVE II.	Protection of sensitive plant species in accordance with Bureau policy.	SAME AS ALTERNATIVE II.

TABLE (continued)
Cumulative Summary of Alternatives

	Alternative I Maximize Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management	Preferred Alternative
WATERSHED	Maintenance of municipal watershed conditions by rerouting roadways, and implementing an existing HMP.	Maintenance/improvement of critical watershed by placing restrictions on other resource activities. Improvement of Sheep Valley riparian and meadows habitats by managing 415 acres.	SAME AS ALTERNATIVE II, EXCEPT management of the Sheep Valley ACEC would comprise 5,440 acres.	No change in municipal watershed.	SAME AS ALTERNATIVE II.
WILDERNESS	Wilderness study areas CA-020-103 Pit River Canyon and CA-020-211 Tule Mountain (28,525 acres) recommended as nonsuitable for wilderness designation.	Preservation of wilderness values on 5,800 acres within CA-020-103 Pit River Canyon WSA.	Preservation of all wilderness values on 28,525 acres within CA-020-103 and CA-020-211 WSAs.	No wilderness designation.	SAME AS ALTERNATIVE II.
MINERALS	Allowance of material sales (cinders and flat rocks) throughout the planning area.	Restriction of flat rock sales within National Register areas. Cinder useage allowed at established pits. Establishment of new cinder pits considered on a case-by-case basis.	Flat rock sales prohibited within the planning area. Cinder useage confined to established pits.	Allowance of material sales at established pits.	SAME AS ALTERNATIVE II.
LANDS	Identification of small and moderate sized isolated parcels; 19,454 acres considered for potential disposal. 8,000 acres identified for exchange.	Identification of mostly small isolated parcels; 22,694 acres considered for potential disposal. 8,000 acres identified for exchange.	Identification of small isolated parcels, 9,033 acres, with no significant natural resource values considered for potential disposal.	Land tenure adjustments processed on a case-by-case basis as received.	SAME AS ALTERNATIVE II.

TABLE
Cumulative Summary of Impacts

	Alternative I Maximize Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management	Preferred Alternative
RANGE	Increased forage production on 73,290 acres. 30 allotments out of production due to land disposal. 5 allotments reduced in area. Ecological range condition would improve in treated areas presently dominated by excess sagebrush, juniper and annual grasses. Adjacent native range would improve. Ecological range condition would decline in some treated areas that are managed primarily for livestock forage. Custodial allotments would maintain static trend.	SAME AS ALTERNATIVE I, EXCEPT for 37 allotments out of production due to land disposal.	Static forage production. 15 allotments out of production due to land disposal. 2 allotments reduced in area. Ecological range condition would remain static in some areas and gradually improve in most others. Loss of 3,400 acres of vegetation treatments within the WSAs. Alt. IIIa - No Grazing Ecological range condition would remain static in some areas and gradually improve in most others.	Increased forage production on 36,000 acres. 129 allotments to remain in production. Ecological range condition would remain static, some currently overused sites would continue to decline, some currently underused sites would continue to improve.	SAME AS ALTERNATIVE II.
FISH AND WILDLIFE	Improved habitat conditions for wildlife dependent on grasses. Significant increase in deer/livestock competition.	Significant improvement in riparian condition, water quality, and fisheries. Additional waterfowl production, improved water quality and quantity in meadow habitats.	SAME AS ALTERNATIVE II, EXCEPT: - Improved aspen condition in Tule Lake and Cold Spring Allotments.	General slight decline in deer/antelope winter range and decrease in available browse at current levels of livestock use.	SAME AS ALTERNATIVE II, EXCEPT improved recruitment in aspen in Cold Spring and Tule Lake Allotments.

TABLE (continued)
Cumulative Summary of Impacts

	Alternative I Maximize Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management	Preferred Alternative
FISH AND WILDLIFE (continued)	Reduction in available browse for deer. Accelerated degradation of riparian and meadow habitats. Potential large-scale habitat losses on deer winter range where development occurs on disposed parcels.	Significant increases in available browse on deer winter range. Potential large-scale habitat losses on deer winter range where development occurs on disposed parcels.	- Potentially improved reproduction of sage grouse and raptors. Alt. IIIa - No Grazing Population increases for all terrestrial wildlife species in response to significant increases in residual forage, improved meadow, spring, and riparian condition.	Antelope kidding grounds remain in stable condition. Slight decline in 36.5 miles of riparian habitat. Sage grouse remain static or subject to slight decline.	SAME AS ALTERNATIVE II, EXCEPT improved recruitment in aspen in Cold Spring and Tule Lake Allotments.
FUELWOOD	Fuelwood availability on a sustained yield basis within vegetation treatment areas would be significantly decreased. Overall, slight decrease in future yield of fuelwood availability.	SAME AS ALTERNATIVE I, EXCEPT restricted fuelwood cutting from National Register Sites and Districts, T&E plant populations, and 415 acres of an ACEC would result in a slight decrease of available fuelwood.	SAME AS ALTERNATIVE II. Alt. IIIa - No Grazing No significant impacts.	No significant impacts.	SAME AS ALTERNATIVE II.
TIMBER	Intensive management on 4,842 acres of timber base lands would result in increased revenue, and health and vigor of the stands. Disposal of 282 acres would have a moderate effect on timber management.	Forest productivity would result in an increase of revenues, and health and vigor of the stands. Disposal of 590 acres of timber base lands would result in a moderate loss of long-term sustained yield of timber revenues.	SAME AS ALTERNATIVE II, EXCEPT: - Disposal of 264 acres of timber base lands would have a moderate effect on timber management. - Loss of 151 acres of commercial forest lands within one WSA.	Intensive management on 5,124 acres of commercial timber base lands would result in increased revenues, and stand and health vigor.	SAME AS ALTERNATIVE II, EXCEPT for disposal of 360 acres of timber base lands.

TABLE (continued)
Cumulative Summary of Impacts

	Alternative I Maximize Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management	Preferred Alternative
TIMBER (continued)			Alt. IIIa - No Grazing No significant impacts.		
CULTURAL	Increased livestock use and certain vegetation treatments would significantly degrade cultural values, particularly around spring sources.	Increased livestock use and certain vegetation treatments would slightly degrade cultural values.	SAME AS ALTERNATIVE II, EXCEPT cultural values would be less susceptible to disturbance as a result of decreased livestock use. Alt. IIIa - No Grazing Disturbance of cultural values from livestock trampling would be eliminated.	Slight disturbance to cultural values as a result of livestock trampling and OHV use.	SAME AS ALTERNATIVE II.
T & E PLANTS	Increased livestock use and fuelwood harvest would slightly disturb sensitive plant species.	Potential disposal of public lands within MA 11 would result in a loss of sensitive plant populations.	No significant impacts. Alt. IIIa - No Grazing No significant impacts.	Slight disturbance to sensitive plant species from livestock trampling and vehicular traffic.	SAME AS ALTERNATIVE II.
WATERSHED	Present conditions would decline with increased livestock grazing and existing OHV use.	Restrictions placed on livestock grazing and OHV use would result in a long-term improvement of watershed conditions.	SAME AS ALTERNATIVE II. Alt. IIIa - No Grazing SAME AS ALTERNATIVE II, EXCEPT for area-wide improvement of soil and riparian areas.	Present conditions would decline with continued OHV and livestock use.	SAME AS ALTERNATIVE II.

TABLE (continued)
Cumulative Summary of Impacts

	Alternative I Maximize Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management	Preferred Alternative
WILDERNESS	Moderate adverse impacts to 28,525 acres of wilderness characteristics from continued OHV use and range management activities within WSAs CA-020-103 Pit River Canyon and CA-020-211 Tule Mountain.	Slight to moderate adverse impacts on 12,735 acres of undesignated WSAs from continued OHV use and range management activities.	No significant impacts. Alt. IIIa - No Grazing Enhancement of wilderness characteristics due to removal of nonconforming grazing use and associated management activities.	Slight reduction to wilderness values.	SAME AS ALTERNATIVE II.
MINERALS	No significant impacts.	5,800 acres designated as wilderness would be closed from mineral location, development, and exploration. This reduction would insignificantly effect the mineral industry in the long-term due to the low potential. Remainder of planning area open to all mineral appropriations.	28,525 acres designated as wilderness would be closed from mineral location, development, and exploration. This reduction would slightly effect the mineral industry in the long-term due to the low potential. Remainder of planning area open to all mineral appropriations. Alt. IIIa - No Grazing No significant impacts.	No significant impacts.	SAME AS ALTERNATIVE II.
LANDS	No significant impacts	No significant impacts.	No significant impacts. Alt. IIIa - No Grazing No significant impacts.	No significant impacts.	SAME AS ALTERNATIVE II.

TABLE (continued)
Cumulative Summary of Impacts

	Alternative I Maximize Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management	Preferred Alternative
SOCIO-ECONOMICS	2 percent increase in cattle numbers for Modoc/Lassen Counties. Significant adverse impact to 3 permittees from land disposal. Slight adverse effect to 32 permittees from land disposal. Insignificant increase in land available for homesites/agricultural development.	SAME AS ALTERNATIVE I, EXCEPT for 0 to 2 percent increase in cattle numbers for Modoc/Lassen Counties. Significant adverse impact to 4 permittees from land disposal. Slight adverse effect to 39 permittees from land disposal. Insignificant increase in land available for homesites/agricultural development.	1 percent decrease in cattle numbers for Modoc/Lassen Counties. Significant adverse impact to 1 permittee from land disposal. Slight adverse effect to 15 permittees from land disposal. Insignificant increase in land available for homesites/agricultural development. Alt. IIIa - No Grazing 3 percent decrease in cattle numbers in Modoc/Lassen Counties. Additional loss of use of landlocked private pastures; or greatly increased cost of fencing. Significant adverse impact to 32 permittees and slight adverse impact to 67 permittees as a result of the No Grazing policy.	No significant impacts.	SAME AS ALTERNATIVE III.

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CHAPTER 1

INTRODUCTION

Chapter 1

INTRODUCTION

LOCATION OF THE STUDY AREA

The Alturas Planning Area is located in northeastern California, in Lassen and Modoc Counties. The planning area consists of approximately 407,306 acres of public lands high in recreation use (primarily hunting, fishing, and rockhounding) and low in permanent population. BLM lands within the Area contain about 5,000 acres of commercial forest land and 250,000 acres of juniper-type woodlands, but the foremost commercial use of BLM lands is livestock grazing. The Modoc National Forest is adjacent to the Alturas Planning Area (see MAPS 1-1 and 1-2).

The BLM manages 407,306 acres of surface and subsurface mineral rights within the Planning Area. BLM also manages 116,050 acres of subsurface mineral rights where surface acreage is held in private ownership.

PURPOSE OF AND NEED FOR ACTION

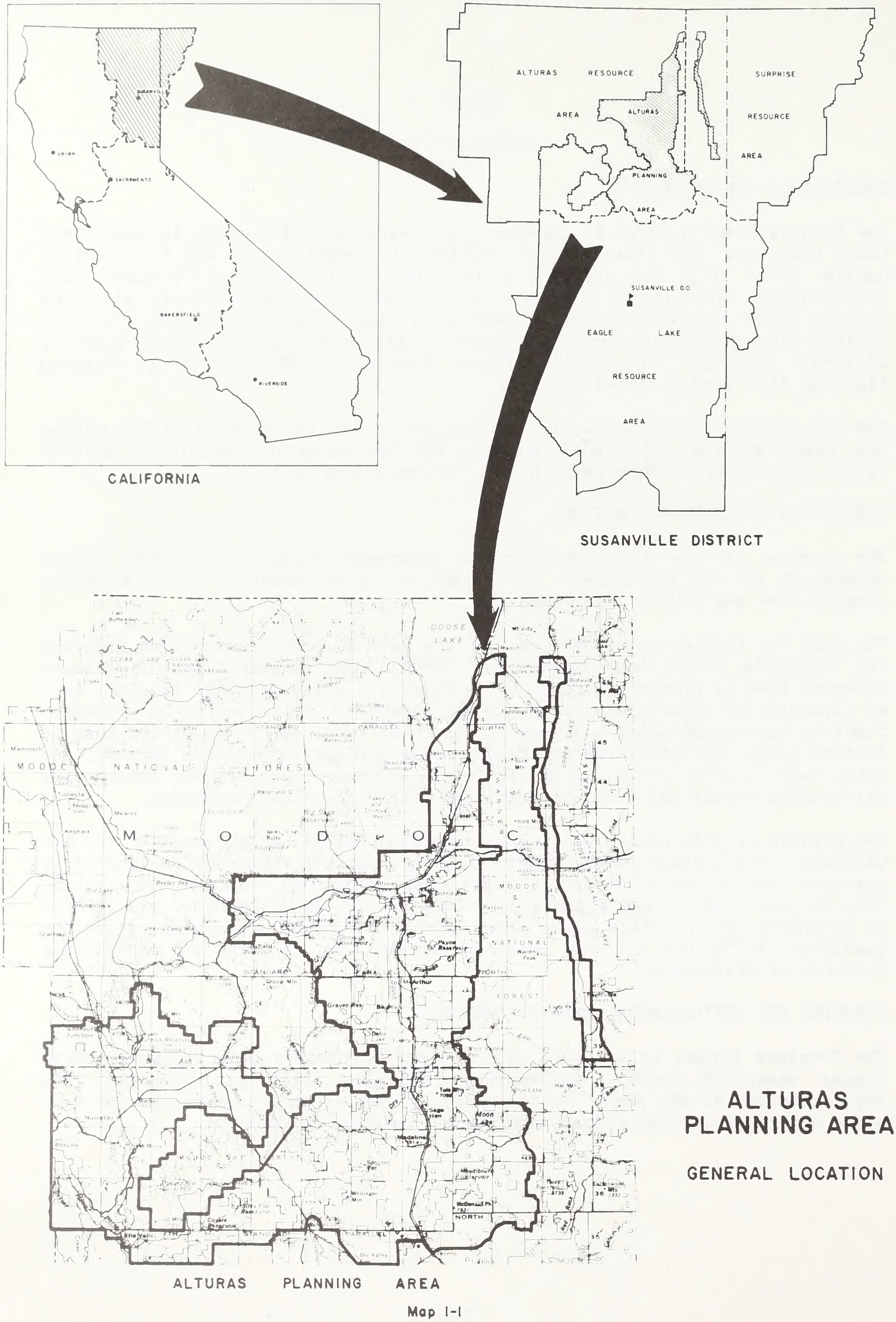
The purpose of the proposed Resource Management Plan is to guide future management of the resources. The objective is to maintain or improve the condition of the public land resources.

The need for this document evolves from the general need to establish programs for improving public land resources. Much of the rangeland in the Alturas Planning Area is producing forage below potential while wildlife habitat, such as riparian and meadow areas, are being degraded. These and other resource problems have established the need for a sound resource management program to improve range condition, timber stands, soils and water, wildlife habitat, and other resources on public lands within the Alturas Planning Area while still maintaining social and economic stability within the local community.

The purpose of this action is also to determine whether or not each of the two wilderness study areas (WSAs) within the planning unit should be designated as suitable for inclusion within the National Wilderness Preservation System. This evolves from a need expressed by Congress in the Wilderness Act of 1964 to inventory all roadless areas under public ownership possessing wilderness qualities to "secure for the American people...the benefits of an enduring resource of wilderness."

PLANNING AND ENVIRONMENTAL ANALYSIS PROCESS

The Proposed Action is one part of the planning process which contains three stages described below: information gathering, land use planning, and implementation of the plan. Public participation is an important part of each stage and plays a vital role in the entire planning process.


CALIFORNIA

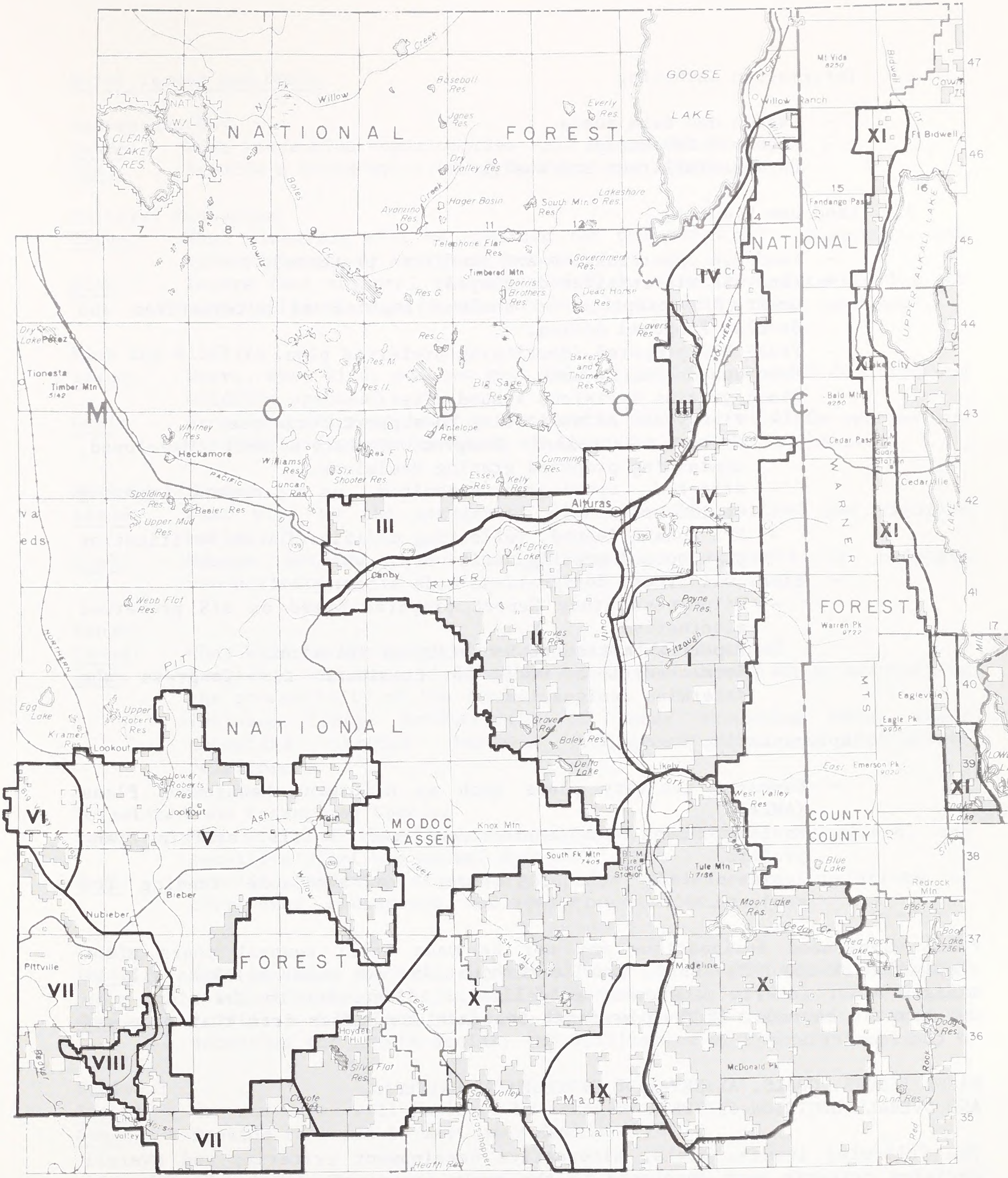
SUSANVILLE DISTRICT

ALTURAS PLANNING AREA

ALTURAS PLANNING AREA

GENERAL LOCATION

Map 1-1



Graphic Scale

0 2mi. 4mi. 6mi. 8mi. 10mi.

N

Legend

—— **Management Area Boundary**

ALTURAS PLANNING AREA

Map 1-2

1. Information Gathering

    - Issues and data needs.
    - Resource inventory.
    - Data assimilation and analysis.

2. Land Use Planning

    - Land use opportunities and conflicts presented.
    - Land use alternatives developed.
    - Draft EIS prepared to analyze impacts of alternatives and develop Proposed Action.
    - Final EIS prepared identifying preferred plan.
    - Land use decisions made.
    - Final grazing decisions issued after:
        - Five years of monitoring to support decisions.
        - Initial Rangeland Program Summary (RPS) developed, containing proposed grazing decisions.
        - Affected operators consulted on proposed grazing decisions.
        - RPS Update issued, reflecting modification or verification of proposed grazing decisions.
    - Final wilderness designations made after:
        - Wilderness Study Report prepared based on EIS preferred alternative.
        - Report submitted to Secretary of Interior.
        - Recommendations made to President and Congress who determine designation.

3. Implementation

    - Resource activity plans such as Allotment Management Plans (AMPs).
    - Environmental Assessments completed before starting any project.
    - Implementation schedules depend on available funding for projects.

Final wilderness designations may not be made until several years after completion of the RMP. Until final determinations are made, all WSAs will be managed under interim management guidelines. Adjustments to the final plan may have to be made, if Congressional designations differ from that proposed in the final plan.

MAJOR ISSUES, GOALS, ALTERNATIVE DEVELOPMENT CRITERIA, AND OVERALL DECISION CRITERIA

The following issues, goals, alternative development criteria, and overall decision criteria were developed in the early stages of planning by BLM, the public, and coordination with state and local governments. These elements guided the planning process.

Major Issues and Goals

Recreation/OHV

Issue: What recreation opportunities will be provided?

Goal: Provide a broad spectrum of recreational opportunities.

Cultural Resources

Issue: What direction will be provided for the inventory, management, and interpretation of cultural resources?

Goal: Insure that cultural resources of high scientific, interpretive, or socio-cultural significance are not destroyed by other land uses.

Fish and Wildlife

Issue: Where, what kind, and how much habitat will be provided for fish and wildlife species?

Goal: Provide sufficient habitat for native fish and wildlife species and give emphasis to maintaining or improving certain key habitats.

Wetland Riparian

Issue: What will be the management direction for wetland and riparian habitats?

Goal: Manage wetland and riparian areas to improve or maintain productivity.

Range

Issue: What will be the level of range use and development?

Goal:
- -Provide a sustained yield of forage to meet demand while maintaining the productivity of the land.
- -Increase forage productivity on lands producing below their potential through improved management and cost-efficient development.

Threatened and Endangered Species

Issue: How will habitats be improved for threatened, endangered, and sensitive plant and animal species?

Goal: Provide habitats to maintain and enhance the populations of threatened, endangered, and sensitive species.

Timber

Issue: What amounts, methods, and locations of timber harvest and other silvicultural activities will be practiced?

Goal: Provide a sustained yield of commercial timber to meet demand by enhancing the growth quality and utilization of timber resources.

Fuelwood

Issue: How and where will fuelwood be managed?

Goal: Provide fuelwood to meet user demand.

Soil and Water

Issue: How will watersheds be managed to maintain or enhance water quality, water quantity, and soil productivity?

Goal:
-Increase water availability to meet resource needs.
-Maintain/enhance water quality.
-Maintain/enhance soil productivity.

Minerals/Energy

Issue: How will mineral areas be managed?

Goal: Determine mineral occurrences in the resource area and establish guidelines for the management of the locatable, leaseable, and saleable surface and subsurface mineral resources.

Socioeconomics

Issue: How will the effect of management be considered in relation to community stability?

Goal: Maintain or enhance the socioeconomic factors (including employment, quality of life, and payments to counties) influenced by the agencies' activities in the local area.

Lands

Issue: What will be the priorities for adjustments in land ownership to meet public demand and to support resource management goals and administrative needs?

Goal: Establish guidelines for land ownership adjustments to address public needs and to facilitate management efficiency.

Wilderness

Issue: Which Wilderness Study Areas (WSAs) in the Alturas area will be recommended to Congress for wilderness designation?

Goal: Recommend the appropriate Wilderness Study Areas for wilderness designation.

Alternative Development Criteria and Overall Decision Criteria

The Alternatives (Chapter 2) were developed using the following criteria:

Alternative	Formulation Criteria
I	Manage to maximize AUM and timber production (including fuelwood) to meet identified demand under the principles of sustained yield. Manage to allow for full mineral and energy production capabilities. Manage to support the demand for water quantity as long as minimal water quality standards are met. Manage to stimulate or enhance the socio-economic conditions in the area. Manage for minimal protection of archaeological resources and wetland/riparian habitat. Manage WSAs as nonwilderness.

Alternative	Formulation Criteria
II	Manage to maximize all resource potentials with mitigation for protection of environmental quality such as water quality, archaeological resources, wetland/riparian habitat, partial wilderness, etc.
III	Manage to minimize human intervention by limiting ORV use, restricting grazing and timber production, and restricting transportation and communication site development. Manage to provide maximum protection for archaeological, wetland/riparian, water quality, and visual quality resources. Manage WSAs as all wilderness.
IIIA	Manage to allow no grazing or AUM consumption by livestock.
IV	Continue present management/No Action.

Then, each alternative was evaluated, with particular emphasis on the significant issues involved, according to the degree to which it:

1. Maintains, enhances, or promotes the social well being of the individuals, families, and communities in the area. Helps to preserve those social, economic and environmental elements determined important by residents of the planning area.
2. Provides for land tenure or use actions which will allow for improved federal land management and meet the needs of national, state, and local people.
3. Meets BLM management objectives and policy of maintaining and providing sustained yield of vegetation for consumptive and nonconsumptive uses.
4. Meets user demands for goods and services from public land, within constraints of multiple use management.
5. Is responsive to the resolution of the maximum number of public issues and management concerns.
6. Meets the BLM Wilderness Study Policy, Wilderness Planning Criteria, and Quality Standards for Analysis and Documentation.

After evaluating each alternative, the Proposed Action was developed consisting of one or a combination of alternatives for each MA. Impacts were then assessed for the Proposed Action. This approach encouraged an unbiased analysis of the alternatives and reaped the benefits from analyzing impacts prior to developing the Proposed Action.

Chapter 2

Alternatives

Chapter 2

ALTERNATIVES

DEVELOPMENT OF ALTERNATIVES

Alternatives were developed for each MA, based on the issues and goals listed in Chapter 1, guided by the alternative formulation criteria, and public consultation, coordination with other agencies, and evaluation by BLM. Only significant issues are addressed.

Although alternatives vary among MAs, they fall within the following framework:

- Alternatives I, II, and III represent a spread from production-oriented to protection-oriented resource management.
- Alternative IIIA is the No Grazing Alternative. For all other resources, Alternative IIIA is the same as Alternative III.
- Alternative IV is the Continue Present Management Alternative.

The following tables describe each alternative by management area. Refer to the tables at the beginning of this document to review cumulative alternatives and impacts for the Planning Area.

The maps listed on page xv (List of Maps) should be used in conjunction with the alternative descriptions. More detailed maps are available for examination in the Resource Area Office.

Table 2-1
Management Area 1
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
RANGE	- Maximize cattle use up to 14,862 AUMs by authorizing suspended nonuse (7,506 AUMs). Authorize 55 AUMs in South Field Allotment (presently unlicensed). - Increase seasons of use by up to 30 days in all allotments. - Heavy utilization in S. Tablelands and N. Tablelands (AMP allotments). - Moderate utilization in all other allotments. Support Needed - Vegetative treatments on 15,000 acres. - 2 stockwater developments. - License South Field Allotments. - Add Signal Butte to N. Tablelands AMP.	- Authorize use of 7,301 livestock AUMs with additional authorization to use up to 7,506 suspended nonuse AUMs as determined to be available through monitoring of livestock forage supply and wildlife habitat trend. - Exclude livestock grazing from Fitzhugh Creek. - Existing seasons of use on all allotments. - Heavy utilization allowed on individual pasture within AMPs allowing rest. - Moderate utilization in all other allotments. Support Needs - Same as Alternative I.	- Authorize cattle use of 5,841 AUMs after allocation of wildlife, watershed, and riparian needs (1,470 AUMs).* - Existing seasons of use on all allotments. - Light grazing utilization on all allotments. - Exclude livestock grazing from entire Fitzhugh Creek corridor. Alternative IIIa - No Grazing - No livestock grazing.	- Maintain existing cattle use of 7,351 AUMs. - Present seasons of use, Table 3-1. - Continue light to moderate utilization. Support Needs - Continue management in accordance with existing AMPs. - Existing project maintenance.
FISH AND WILDLIFE	- Deer/antelope and sage grouse habitat subject to current management.	- Maintain existing improvements and enhance fisheries and riparian habitat on 6.5 miles of Fitzhugh Creek.	- Maintain existing improvements and enhance fisheries and riparian habitat on 6.5 miles of Fitzhugh Creek.	- Maintain 33,040 acres of deer/antelope winter range and 13 sage grouse strutting grounds. No manipulation proposed.

* There is no data available on AUMs needed for wildlife, watershed, and riparian. Calculations assumed a reduction from present utilization levels to a light (40%) utilization level.

Table 2-1 (continued)
Management Area 1
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
FISH AND WILDLIFE (continued)	- Maintain existing improvements and enhance fisheries and riparian habitat on 2.5 miles of Fitzhugh Creek. Support Needs - Complete implementation of Fitzhugh Creek HMP.	- 33,040 acres of deer winter range and antelope winter range subject to current management. - Maintain 13 sage grouse strutting grounds. - Enhance fisheries, watershed, and riparian values. Support Needs - Fence meadows at 8 springs and 3 reservoirs. - Allow no permanent development on sage grouse strutting grounds and impose seasonal restrictions on potentially disturbing activities from February 15 to May 1. - Restrict vegetative manipulation on strutting grounds. - Complete implementation of Fitzhugh Creek HMP.	- Enhance deer/antelope winter range. - Protect 13 strutting grounds and enhance nesting opportunities for sage grouse. Support Needs Same as Alternative III, except: - Complete HMP implementation on Fitzhugh Creek and expand exclosure and habitat improvements to include 6.5 miles of stream. - Prescribe burn 200 acres to improve decadent browse. - Restrict permanent development on strutting grounds and seasonally restrict disturbing activities from February 15 to May 1 around all sage grouse strutting grounds. - Prohibit vegetative treatments which would reduce sagebrush component on strutting grounds.	- Maintain existing improvements and enhance fisheries and riparian habitat on 2.5 miles of Fitzhugh Creek. Support Needs - Complete implementation of Fitzhugh Creek HMP.

Table 2-1 (continued)
Management Area 1
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
TIMBER	- Continue intensive management on 57 acres of timber base lands. - Reinstate 7 acres of commercial forest land into the timber base in Dervin Field.	- Continue intensive management on 57 acres. - Allow timber harvest in Corbie Allotment (18 acres), maximizing soil protection along Pine Creek.	- Same as Alternative II.	- Continue intensive management on 57 acres of commercial timber base lands. - Maintain withdrawal of 7 acres in Dervin Field Allotment. Support Needs - Precommercial thinning, timber sales, reforestation.
WATERSHED	- Maintain water quality in Pine Creek and Fitzhugh Creek. - Maintain roadways on Likely Table. Support Needs - Develop Best Management Practices (BMP) for Pine Creek and Fitzhugh Creek. - Require mitigation of timber operations along Pine Creek. - Grade and reroute roadways in deteriorated areas.	- Improve water quality and riparian vegetation along Pine Creek and Fitzhugh Creek. - Maintain roadways on the Likely Table. Support Needs - Develop BMP for Pine Creek, requiring restrictive timber harvest methods, which preclude mitigation. - Adopt existing Fitzhugh Creek HMP as BMP in addition to planting willows and maintaining instream structures along the creek to provide shade cover.	- Enhance and improve water quality along Fitzhugh Creek and Pine Creek. - Maintain roadways on Likely Table. Support Needs - Same as Alternative II. - Restrict OHV use on Tablelands during wet periods.	- Improve water quality in Fitzhugh Creek. - Minimal maintenance on the Tablelands road network. Support Needs - Develop BMP for Fitzhugh Creek, consistent with the HMP.

Table 2-1 (continued)
Management Area 1
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
WATERSHED (continued)		- Exclude OHVs from Fitzhugh Creek corridor. - Grade and realign lengths of Tableland road network.		
CULTURAL	- Protect only those sites with National Register potential.	- Designate 3 National Register Districts. - Designate 5 National Register Sites. Support Needs - Restrict OHV use to designated routes within National Register Districts and Sites. - Develop a CRMP on Fitzhugh Creek. - Establish buffer zones around National Register Sites and Districts.	- Designate 3 National Register Districts. - Designate 5 National Register Sites. Support Needs - Same As Alternative II.	- Continue protection of cultural values as provided by law.
LANDS	- Improve manageability of small, isolated parcels of public lands. Support Needs - Consider 680 acres of public lands for potential disposal.	- Same as Alternative I.	- Improve manageability of isolated tracts of public lands giving full consideration to natural resource values. Support Needs - Consider 560 acres of public lands for potential disposal.	- Public land disposals considered on a case-by-case basis.

Table 2-1 (continued)
Management Area 2
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
RANGE	- Maximize cattle use up to 9,576 AUMs by restoring suspended nonuse (5,113 AUMs). - Combine Westside and Bailey Dorris Allotments to form AMP. - Lengthen Bailey Dorris, Westside, S. Graves, N. Graves, and Mackey (AMP) Allotments seasons of use by up to 60 days, as requested by permittee. - Lengthen Ryegrass Swale Allotment season of use by up to 30 days. - Allow heavy utilization on individual pastures with AMPs allowing rest. - Moderate utilization on all other allotments Support Needs - Vegetative treatment on approximately 6,000 acres (see map). - Develop AMP. - 7 stockwater developments.	- Authorize existing use of 4,463 livestock AUMs with additional authorization to use up to 5,113 suspended nonuse AUMs as determined to be available through monitoring of livestock forage supply and wildlife habitat trend. - Existing seasons of use except allow up to 30± day increase in Bailey Dorris, Westside, and Ryegrass Swale Allotment. - Heavy utilization allowed on individual pastures within AMPs allowing rest. Support Needs - Same as Alternative I.	- Authorize livestock use of 2,990 AUMs after allocation of wildlife, watershed, and riparian needs (1,473 AUMs). - Allow moderate utilization in AMP allotments, light elsewhere. - Allow existing seasons of use. Support Needs - 7 stockwater developments. Alternative IIIa - No Grazing - No livestock grazing.	- Maintain existing livestock use of 4,463 AUMs. - Continue present seasons of use. - Continue moderate utilization on all other allotments. - Continue development of Westside and Bailey Dorris AMP. Support Needs - Continue current project maintenance.

Table 2-1 (continued)
Management Area 2
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
FISH AND WILDLIFE	- Antelope summer range and sage grouse strutting grounds subject to current management. - Improve browse on deer winter range. Support Needs - Thin 2,960 acres of junipers.	- Improve browse on deer winter range. - Improve meadow and spring habitats. - Maintain one sage grouse strutting ground. - Antelope summer range, deer winter range, subject to current management. Support Needs - Thin 2,960 acres of juniper. - Fence 17 springs and meadows. - Allow no permanent developments on sage grouse strutting ground and impose seasonal restrictions on potentially disturbing activities from February 15 to May 1. - Restrict vegetative manipulation on strutting grounds.	- Antelope summer range, subject to current management. - Protect one sage grouse strutting ground and enhance nesting opportunities. - Protect meadows and springs. - Improve browse on deer winter range. Support Needs - Fence meadows at 17 springs and 1 reservoir to exclude livestock. - Thin 2,960 acres of juniper to improve decadent browse. - Prohibit permanent development of one strutting ground and seasonally restrict disturbing activities from February 15 to May 1 within one mile of all sage grouse strutting grounds. - Prohibit vegetative treatments on strutting ground which would reduce the sagebrush component.	- Maintain 37,684 acres of deer winter range, 6,100 acres of antelope kidding grounds, and one sage grouse strutting ground. No manipulation proposed.

Table 2-1 (continued)
Management Area 2
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
FUELWOOD	- Permit the harvest of juniper, mahogany, and commercial species on all public lands.	- Allow fuelwood harvest, except within Wade Williams National Register District and the 10-acre buffer zone of the Eriogonum prociduum population.	- Allow fuelwood harvest, except within Wade Williams National Register District and 10-acre buffer zone of Eriogonum prociduum.	- Continue issuance of juniper fuelwood permits upon demand on 20,585 acres.
TIMBER	- Continue intensive management practices on 83 acres.	- Continue intensive management practices on 83 acres.	- Continue intensive management practices on 83 acres.	- Continue plans for 1984 timber sale on 83 acres of commercial timber base land.
T & E	- Provide minimum protection of Eriogonum prociduum as required by Bureau policy.	- Provide protection to Eriogonum prociduum. - Restrict OHV use to existing routes. Support Needs - Establish 10-acre buffer zone around T & E populations.	- Restrict OHV use to existing routes. - Provide protection to Eriogonum prociduum. Support Needs - Same as Alternative II.	- Continue protection of Eriogonum prociduum as provided by Bureau policy.
CULTURAL	- Protect only those sites with National Register potential.	- Designate 1 National Register District (Wade Williams Canyon). - Designate 6 National Register Sites. Support Needs - Restrict OHV use around National Register areas.	- Designate 1 National Register District. - Designate 6 National Register Sites. Support Needs - Establish buffer zones around 1 National Register District and 6 National Register Sites.	- Continue protection of cultural values, as provided by law.

Table 2-1 (continued)
Management Area 2
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
CULTURAL (continued)		- Establish buffer zones around 6 National Register Sites and 1 National Register District.	- Restrict OHV use to designated routes around National Register areas.	
LANDS	- Improve manageability on small isolated tracts of public lands. Support Needs - Consider 720 acres of public lands for potential disposal.	- Improve manageability of small isolated tracts of public lands. Support Needs - Consider 600 acres of public lands for potential disposal.	- Improve manageability of isolated tracts of public lands giving full consideration to natural resource values. Support Needs - Consider 520 acres of public lands for potential disposal.	- Consider disposal of public lands on a case-by-case basis.

Table 2-1 (continued)
Management Area 3
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
RANGE	- Maximize cattle use up to 947 AUMs by restoring suspended nonuse (289 AUMs). - Extend season of use for most allotments by up to 30± days. Seasons of use for Strip and Blacks Canyon Rim Allotments must parallel adjacent Modoc National Forest seasons. - Moderate utilization on all allotments. - Provide proportion of forage and habitat for 150 wild horses and burros on Strip Allotment as part of the Devil's Garden East Herd Unit. Support Needs - Vegetative treatments on 150 acres. - 4 stockwater developments.	- Authorize 658 livestock AUMs with additional authorization to use up to 289 suspended nonuse AUMs as determined to be available through monitoring of livestock forage supply and wildlife habitat trend. - Existing seasons of use on all allotments. - Moderate grazing utilization on all allotments. - In Strip Allotment provide proportion of forage and habitat for 150 wild horses and burros as part of the Devil's Garden East Herd Unit. Support Needs - Same as Alternative I.	- Authorize 693 livestock AUMs. - Existing seasons of use on all allotments. - Light utilization level on all allotments. - Provide proportion of forage and habitat for 150 wild horses and burros on Strip Allotment as part of the Devil's Garden East Herd Unit. Alternative IIIa - No Grazing - No livestock grazing.	- Maintain existing cattle use of 735 AUMs. - Manage at existing seasons of use (see Table 3-1). - Light utilization levels on all allotments. - Provide proportion of forage and habitat for 150 wild horses and burros on Strip Allotment as part of the Devil's Garden East Herd Unit. Support Needs - Maintain existing projects/ improvements.
FISH AND WILDLIFE	- Deer winter range and antelope habitat, subject to current management.	- Protect Noble-Fish and Rattlesnake Springs and meadows from livestock trampling. - Improve browse on deer winter range.	- Protect spring and meadows at Noble-Fish Springs and Rattlesnake Springs from livestock trampling. - Prescribe burn 1,960 acres to improve decadent browse.	- No special designations or management for riparian habitat, springs, or fisheries habitat (1-3/4 miles of creeks on public lands).

Table 2-1 (continued)
Management Area 3
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
FISH AND WILDLIFE (continued)		Support Needs - Construct juniper barrier around Rattlesnake Spring. - Construct fence around Noble-Fish Spring and Meadow. - Open up juniper canopy by directing woodcutting in juniper encroachment areas to rejuvenate decadent browse.	- Maintain one sage grouse strutting ground in Caldwell Allotment. Support Needs - Open up juniper canopy by directing woodcutting in juniper encroachment areas to rejuvenate decadent browse. - Allow no permanent development on one sage grouse strutting ground and impose seasonal restrictions on potentially disturbing activities from February 15 to May 1.	- No active management on deer winter range, antelope winter and summer range and kidding grounds (1,750 acres. No manipulation proposed.
TIMBER	- No commercial timber base lands exist following disposal of public lands.	- No commercial timber base lands exist following disposal of public lands.	- Continue intensive timber management.	- Continue intensive forest management on 22 acres of commercial timber base lands.
FUELWOOD	- Permit harvest of juniper upon demand.	- Direct cutting to designated areas to improve wildlife forage and browse. - Remainder of area open to juniper harvest upon demand.	- Direct cutting to designated areas to improve wildlife forage and browse. - Remainder of area open to juniper harvest upon demand.	- Permits allowed for juniper upon demand on 6,540 acres, except on scattered parcels within Modoc Recreation Estates.

Table 2-1 (continued)
Management Area 3
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
CULTURAL	- Protect only those sites with National Register potential.	- Protect 3 cultural sites and/or sites of importance to Native Americans by National Register nomination or CRMP development in X-L Allotment. Support Needs - Restrict OHV use around National Register sites.	- Protect 3 cultural sites of importance to Native Americans by nomination to National Register and/or CRMP development in X-L Allotment. Support Needs - Restrict OHV use on designated routes.	- Continue protection of cultural values, as provided by law.
LANDS	- Improve manageability of small isolated tracts of public lands. Support Needs - Consider 2,600 acres of public lands for potential disposal.	- Improve manageability of isolated tracts of public lands. Support Needs - Consider 2,160 acres of public lands for potential disposal.	- Improve manageability of isolated tracts of public lands giving full consideration to natural resource values. Support Needs - Consider 640 acres of public lands for potential disposal.	- Land disposals presently considered on a case-by-case basis.

Table 2-1 (continued)
Management Area 4
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
RANGE	- Allocate cattle use up to 769 AUMs by restoring 316 suspended nonuse AUMs only on those allotments having good management potential (Russell Slough, Capik, Crowder, Russell, Thoms Creek, Brown Field, and one pasture of Gardner). - Season of use adjustable by up to 60 days in Russell Slough AMP and Crowder Allotments. - Heavy utilization in Russell Slough, moderate utilization in others. Support Needs - Develop 1 AMP for Crowder Allotment. - Add Capik to Russell Slough AMP. - Construct 2½ miles of pasture division fence in Crowder Allotment. - 5 stockwater developments.	Same as Alternative I. Support Needs - Same as Alternative I.	- Allocate cattle use of 657 AUMs for all allotments in the MA, except Hagge, Hughes, Christopher, and portions of Roberts Creek and Sternes. - Existing seasons of use. - Light utilization in all allotments. Support Needs - Same as Alternative I. Alternative IIIa - No Grazing - No livestock grazing.	- Maintain existing cattle use of 742 AUMs. - Present seasons of use (Table 3-1). - Light utilization level. Support Needs - Maintain existing range improvements.

Table 2-1 (continued)
Management Area 4
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
FISH AND WILDLIFE	- Antelope habitat and sage grouse strutting grounds subject to current management. - Improve browse on deer winter range. Support Needs - Thin 1,600 acres of juniper to rejuvenate browse.	- Antelope habitat and sage grouse strutting grounds subject to current management. - Improve browse on deer winter range. - Improve meadow and spring habitats. Support Needs - Fence 13 springs and meadows. Use thinning or prescribed fire to reduce juniper encroachment in browse and meadow habitats.	- Protect riparian habitat and fisheries on Lassen Creek. - Current management of springs, meadows, sage grouse, antelope, and riparian areas. - Improve browse and meadows. Support Needs - Fence 3/8 miles of Lassen Creek to exclude cattle. - Reduce juniper encroachment in meadow and browse areas by thinning or prescribed burning. - Fence meadows at 9 springs.	- No special designations or management for riparian or fisheries habitat (3/8 miles of Lassen Creek). - No active management on deer winter range, antelope migration corridor and kidding grounds. No manipulation proposed. - Maintain existing levels of spring maintenance.
FUELWOOD	- Permit the harvest of juniper on all public lands, upon demand.	- Direct cutting to designated areas to improve wildlife forage and browse. - Remainder of area open to juniper harvest, upon demand.	- Direct cutting to designated areas to improve wildlife forage and browse. - Remainder of area open to juniper harvest, upon demand.	- Permits allowed for juniper harvest, upon demand on 3,599 acres.

Table 2-1 (continued)
Management Area 4
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
LANDS	- Improve manageability of public lands. Support Needs - Consider 4,562 acres of public lands for potential disposal.	- Improve manageability of small isolated parcels of public land. Support Needs - Consider 3,362 acres of public lands for potential disposal.	- Improve manageability of isolated parcels of public lands giving full consideration to wildlife values. Support Needs - Consider 1,320 acres of public lands for potential disposal.	- Land disposal considered on a case-by-case basis.

Table 2-1 (continued)
Management Area 5
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
RANGE	- Maximize cattle use up to 1,717 AUMs by restoring suspended nonuse (210 AUMs) and allocating use of excess forage available. - Allow up to 30 day extension in Dibble Hill and Chase Valley Allotments. - Season of use must parallel USFS in Knudson and Hayes Spring Allotments. - Develop 1 AMP in Chase Valley Allotment. - Moderate utilization on all allotments. Support Needs - Vegetative treatments on 1,000 acres. - 4 stockwater developments. - Combine Mamath and Roberts Individual Allotments. - Fence boundaries of Chase Valley and Hitchens Allotments (4 miles).	- Authorize existing use of 1,507 livestock AUMs with additional authorization to use up to 210 suspended nonuse AUMs as determined to be available through monitoring of livestock forage supply and wildlife habitat trend. - Existing seasons of use, except allow 30 day extension on Dibble Hill and Chase Valley Allotments. - Develop 1 AMP in Chase Valley Allotment. - Moderate utilization on all allotments. - Season of use must parallel USFS in Knudson and Hayes Spring Allotments. Support Needs - Same as Alternative I.	- Authorize cattle use of 1,231 AUMs after allocation of wildlife, watershed, and riparian needs (609 AUMs). - Existing seasons of use. - Light grazing utilization on all allotments. - Develop 1 AMP, Chase Valley. Alternative IIIa- No Grazing - No livestock grazing.	- Maintain existing cattle use of 1,947 AUMs. - Present seasons of use (Table 3-1). - Moderate utilization levels within all allotments. Support Needs - Existing project maintenance.

Table 2-1 (continued)
Management Area 5
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
FISH AND WILDLIFE	- Deer/antelope winter range, antelope kidding grounds, and sage grouse strutting grounds, subject to current management. - No active raptor management.	- Deer/antelope winter range and antelope kidding grounds, subject to current management. - Protect sensitive raptor nest locations (eagles, goshawks, Swainson's hawks). - Maintain 1 sage grouse strutting ground at Juniper Creek. - Protect and enhance Iverson Bald Eagle roost. Support Needs - Allow no permanent developments on sage grouse strutting grounds and impose seasonal restrictions on potentially disturbing activities from February 15 to May 1. - Develop HMP for Iverson Bald Eagle roost. - Restrict vegetative manipulation on strutting grounds. - Post all Swainson's hawk nest trees to prevent harvest for fuelwood.	- Antelope winter range and kidding grounds, subject to current management. - Improve browse in deer winter range. - Protect and enhance Iverson Bald Eagle roost. - Protect 2 strutting grounds and enhance nesting opportunities for sage grouse. - Protect all raptor nest trees from timber or fuelwood cutting. Support Needs - From April 1 to July 15, limit vehicular access within 200 yards of raptor nest sites susceptible to disturbance. - Prohibit permanent development on 2 strutting grounds and seasonally restrict disturbing activities from February 15 to May 1 within 1 mile of all sage grouse strutting grounds. - Develop HMP for Iverson Bald Eagle roost.	- Maintain adequate deer/antelope winter range, antelope kidding grounds, and sage grouse strutting grounds. No manipulation proposed. - Manage to maintain 2,250 acres of antelope kidding grounds in current condition. - No active raptor management.

Table 2-1 (continued)
Management Area 5
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
FISH AND WILDLIFE (continued)			- Use prescribed burning or juniper thinning to improve decadent browse.	
TIMBER	- Present management on 454 acres of commercial base lands.	- Present management on 454 acres of commercial base lands.	- Present management on 454 acres of commercial base lands.	- Continue intensive timber management practices on 488 acres of commercial base lands. Support Needs - Timber sales, precommercial thinning, brush manipulation, reforestation.
FUELWOOD	- Permit harvest of juniper, mahogany, and oak on all public lands.	- Permit harvest of juniper and mahogany on all public lands.	- Permit harvest of juniper and mahogany on all public lands.	- Continue issuance of permits for juniper fuelwood on 3,600 acres, upon demand.
CULTURAL	- Protect only those sites with National Register potential.	- Designate 3 National Register Sites and 1 National Register District. Support Needs - Restrict OHV use around National Register Sites. - Develop a CRMP on Juniper Creek. - Establish buffer zones around National Register Sites and District.	- Designate 3 National Register Sites and 1 National Register District. Support Needs - Same as Alternative II.	- Continue protection of cultural values, as provided by law.

Table 2-1 (continued)
Management Area 5
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
LANDS	- Improve manageability of public lands. Support Needs - Consider disposal of 3,080 acres of public lands.	- Improve manageability of public lands. Support Needs - Consider disposal of 3,080 acres of public lands.	- Improve manageability of public lands giving full consideration to natural resource values. Support Needs - Consider disposal of 1,120 acres of public lands.	- Land disposal considered on a case-by-case basis.

Table 2-1 (continued)
Management Area 6
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
RANGE	- Present management.	- Present management.	- Present management. Alt. IIIa - No Grazing - No livestock grazing.	- Maintain existing cattle use of 80 AUMs. - Present season of use (Table 3-1). - Moderate utilization level. Support Needs - Existing project maintenance.
FISH AND WILDLIFE	- Protect springhead at Bear Spring. Support Needs - Fence Bear Spring and Meadow to exclude livestock.	- Same as Alternative I.	- Same as Alternative I.	- No active management.
TIMBER	- Present management.	- Present management on 1,624 acres.	- Present management on 1,624 acres.	- Intensive timber management on 1,854 acres of commercial timber base lands. Support Needs - Precommercial thinning, timber sales, reforestation, & brush manipulation.

Table 2-1 (continued)
Management Area 6
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
LANDS	- Present management.	- Improve manageability of public impacts. - Consider potential disposal of 240 acres of public lands.	- Improve manageability of public impacts. - Consider potential disposal of 240 acres of public lands.	- Land disposal considered on a case-by-case basis.

Table 2-1 (continued)
Management Area 7
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
RANGE	- Maximize cattle use up to 7,392 AUMs by authorizing suspended nonuse (2,006 AUMs) and allocating use of excess forage available. - Develop 6 AMPs. - Increase seasons of use by up to 60 days on 6 allotments with AMPs (Dixie Valley, Muck Valley, E. Beaver/Plantation, Bald Mountain, W. Beaver Creek, and Thompson). - Heavy utilization on individual pastures where grazing systems include rest; moderate on remaining allotments. Support Needs - Vegetative treatments on 5,500 acres. - 5 stockwater developments. - 8 miles of fence.	- Authorize use of 5,356 livestock AUMs with additional authorization to use up to 2,006 suspended nonuse AUMs as determined to be available through monitoring of livestock forage supply and wildlife habitat trend. - Existing seasons of use except extend seasons of use up to 30 days in 6 areas identified for AMP implementation. - Heavy utilization allowed on individual pastures within AMPs allowing rest. Moderate utilization on remaining allotments. - Exclude livestock from 350 acres of meadows in Sheep Valley. Support Needs - Same as Alternative I.	- Authorize cattle use of 4,150 AUMs after allocation of wildlife, watershed, and riparian values (1,084 AUMs). - Existing seasons of use. - Light utilization level. Alternative IIIa - No livestock grazing.	- Maintain existing cattle use of 5,386 AUMs. - Present seasons of use, Table 3-1. - Continue light to moderate utilization level. Support Needs - Maintain existing range projects. - Continue management in accordance with existing AMPs.

Table 2-1 (continued)
Management Area 7
Alternatives

Issue	Alternative I Maximize Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
FISH AND WILDLIFE	- Antelope habitat subject to current management. - Deer winter range (Day Bench) managed in accordance with existing HMP.	- Improve riparian condition on Russell Dairy and upper Horse Creeks. - Enhance browse in deer winter range on Day Bench. - Establish and protect deer migration routes on Day Bench. Support Needs - Exclude cattle by fencing on total of 3½ miles of upper Horse and Russell Dairy Creeks. - Acquire private parcels as opportunity arises in deer migration corridor on Day Bench. - Implement existing HMP for prescribed burning of approximately 2,600 acres.	- Same as Alternative II.	- Maintain adequate deer winter range habitat on Day Bench. --Prescribed burn on 2,600 acres. --Manage in accordance with HMP. - Manage 2,900 acres of antelope winter range and kidding ground to keep in good condition. - 15 miles of riparian stream habitat (3 streams) have no active plans or designations.
WATERSHED	- No special management.	- Protect 350 acres of riparian meadows and springs in Sheep Valley by excluding livestock with fences.	- Protect 5,440 acres in Sheep Valley by fencing meadows, springs, creeks, and immediate watershed to exclude livestock.*	- Approximately 5,400 acres in Sheep Valley are degrading. Meadows and wetlands are receiving no special management.

* 1,600 acres of Sheep Valley fall within MA 10. The watershed issue for the entire valley is addressed within this MA for simplicity. The issue is later referenced in MA 10 to reflect range management.

Table 2-1 (continued)
Management Area 7
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
WATERSHED (continued)		- Protect an additional 65 acres of riparian values from fuelwood harvest. - Restrict vehicular traffic within the 350 acres. Support Needs - Develop BMP for Sheep Valley Riparian areas.	Support Needs - Restrict OHV use within ACEC. - Designate Sheep Valley as an ACEC. - Develop BMP for Sheep Valley riparian areas.	
TIMBER	- Continue to apply intensive timber management to 1,075 acres of timber base lands on sustained yield basis.	- Existing intensive management.	- Existing intensive management.	- Continue intensive timber management on 1,075 acres of commercial timber base lands. Support Needs - Precommercial thinning, timber sales, reforestation.
FUELWOOD	- Permit harvest of oak, juniper, and mahogany upon demand.	- Permit harvest of juniper and mahogany except in Sheep Valley (415 acres) and Beaver Creek National Register District (2,400 acres).	- Permit harvest of juniper and mahogany except in Sheep Valley ACEC (5,440 acres) and Beaver Creek National Register District (2,400 acres).	- Permits for juniper fuelwood issued upon demand on 21,700 acres.

Table 2-1 (continued)
Management Area 7
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
MINERALS	- Allow full use of existing cinder pits, and any new sources that are identified. - Allow flat rock sales within Beaver Creek Rim and Dixie Valley areas.	- Allow full use of existing cinders pits. Establishment of new pits considered on a case-by-case basis. - Flat rock sales prohibited in National Register Districts.	- Exclude flat rock sales, continue cinder usage from existing pits.	- Continue material sales for cinders from Babcock, Round Barn, and Day Pits. - Continue material sales for decorative flat rock on Beaver Creek Rim.
CULTURAL	- Protect sites with National Register potential.	- Designate 3 National Register Districts and 5 National Register Sites. Support Needs - Fence 4 cultural sites in upper Horse Creek to exclude cattle. - OHV limited to existing roads and trails in designated Districts and National Register Sites. - Develop 1 CRMP for W. Beaver Creek. - Establish a buffer zone around W. Beaver Creek National Register District.	- Designate 3 National Register Districts and 5 National Register Sites. Support Needs - Same as Alternative II, except acquire private land within W. Beaver Creek Allotment, to improve manageability of cultural site. - Limit OHV use to existing roads and trails in National Register Districts and National Register Sites.	- No formal protection of known sites.

Table 2-1 (continued)
Management Area 8
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
RANGE	- Maximize cattle use up to 351 AUMs by restoring suspended nonuse (41 AUMs) and allowing use of excess available forage. Authorize 25 AUMs in Round Barn Allotment. - Increase season of use up to 30 days. - Heavy utilization allowed on individual pastures within AMPs allowing rest. - Moderate utilization in Round Barn Allotment. Support Needs - Vegetative treatment on 1,900 acres. - 4 stockwater developments. - License Round Barn Allotment for 25 AUMs. - Develop 2 AMPs for River Pasture and Muck Valley Allotments.	- Authorize use of 310 livestock AUMs with additional authorization to use up to 41 suspended nonuse AUMs as determined to be available through monitoring of livestock forage supply and wildlife habitat trend. - Increase season of use up to 30 days in River Pasture. - Heavy utilization allowed on individual pastures within AMPs allowing rest. - Moderate utilization in Round Barn Allotment. Support Needs - Same as Alternative I.	- Same as Present Management. Alt. IIIa - No Grazing - No livestock grazing.	- Maintain existing cattle use of 285 AUMs. - Present seasons of use, Table 3-1. - Continue light to moderate utilization levels on all allotments. Support Needs - Existing project maintenance.

* Muck Valley, Thompson, and East Beaver Creek Allotments all lie partially within MA 8, but mostly within MA 7. Production figures for these allotments are discussed in MA 7.

Table 2-1 (continued)
Management Area 8
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
FISH AND WILDLIFE	- Protect lower Pit River Canyon riparian habitat. - No active raptor management. - Antelope habitat subject to current management. Support Needs - Construct drift fence to exclude cattle.	- Protect lower Pit River Canyon riparian habitat. - Improve meadow habitat at Ruhnert Spring. - Antelope habitat will be subject to current management. - Protect all eagle, falcon, and Swainson hawk nest locations. Support Needs - Post all eagle and Swainson's hawk nest trees to prevent their harvest for fuelwood. - Construct drift fence to exclude cattle from lower Pit River Canyon. - Construct fence to exclude cattle from meadow at Ruhnert Spring.	- Protect lower Pit River Canyon riparian habitat. - Protect all raptor nest trees from fuelwood harvest. - Enhance nesting opportunities for eagles, prairie falcons, and Swainson's hawks. - Antelope habitat will be subject to current management. Support Needs - Construct drift fence to exclude cattle from lower Pit River Canyon. - Post all raptor nest trees to prevent harvest for fuelwood. - Limit vehicular access within 200 yards of eagle, prairie falcon, and Swainson's hawk nest sites from April 1 to July 15.	- No special designations or management for riparian or fisheries habitat (15 miles of stream). - No active raptor management. - Deer winter range, antelope summer range and kidding grounds will remain in adequate condition. No manipulation proposed.
WILDERNESS	- Recommend #CA-020-103 Pit River Canyon WSA (11,575 acres) as nonsuitable for wilderness.	- Recommend 5,800 acres for partial wilderness designation as indicated on map (Pit River Canyon).	- Recommend entire WSA, 11,575 acres, as suitable for wilderness designation.	

Table 2-1 (continued)
Management Area 8
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
WILDERNESS (continued)		- Acquire 200 acres of private land to enhance wilderness manageability.	- Acquire 1,300 acres of private land to enhance wilderness manageability.	- No wilderness designation. All uses allowed at levels present at time of WSA designation and new uses allowed that will not degrade wilderness values until Congress decides wilderness status.
FUELWOOD	- Permit harvest of juniper and oak fuelwood upon demand.	- Permit harvest of juniper fuelwood except within proposed wilderness area.	- No fuelwood harvest allowed.	- Continue issuance of juniper fuelwood permits upon demand on 4,700 acres.
RECREATION	- All lands open to OHV use.	- Restrict OHV use to designated roads and trails. - Prohibit OHV use within the wilderness area.	- Manage for primitive recreation, prohibit all OHV travel within WSA.	- No use restriction.
CULTURAL	- Protect only those sites with National Register potential.	- Same as Alternative I.	- Protect all cultural sites by nomination to National Register, special designation, or CRMP.	- No formal protection of known sites (inventory continues).

Table 2-1 (continued)
Management Area 9
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
RANGE	- Authorize use of 160 livestock AUMs. - Allow flexibility in season of use of up to 30 days. - Allow moderate utilization. - Discontinue licensing of livestock use in N. Termo, Lane, and the northeast portion of Fillman-Diablo Allotments. Support Needs - Construct 1 reservoir. - Vegetative treatment on 640 acres.	- Same as Alternative 1.	- Same as Alternative I, except existing season of use. Alt. IIIa - No Grazing - No livestock grazing.	- Maintain existing cattle use of 841 AUMs. - Present seasons of use (Table 3-1). - Moderate utilization levels on all allotments. Support Needs - Existing project maintenance.
FISH AND WILDLIFE	- Present management.	- Present management.	- Present management.	- 8,400 acres of antelope summer range and kidding grounds (1,080 acres) under no active management.

Table 2-1 (continued)
Management Area 9
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
T & E PLANTS	- Provide minimal protection of Lomatium ravenii as required by Bureau policy.	- Protect population of Lomatium ravenii. Support Needs - Monitor condition of population annually.	- Protect population of Lomatium ravenii. Support Needs - Same as Alternative II.	- Continue protection of T&E plant species as required by Bureau policy.
LANDS	- Improve manageability of public lands. Support Needs - Consider 8,000 acres of public lands for potential disposal (presently being considered for exchange).	- Same as Alternative I.	- Same as Present Management.	- Continue disposal of public lands on a case-by-case basis.

Table 2-1 (continued)
Management Area 10
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
RANGE	- Maximize livestock use up to 44,159 AUMs by authorizing suspended nonuse (16,630 AUMs). - Increase seasons of use up to 30 days in Nelson Corral Allotment. - Allow heavy utilization on individual pastures within AMPs allowing rest. - Allow moderate utilization levels on all other allotments. Support Needs - Vegetation treatments on 26,000 acres. - 15 stockwater developments. - 20 miles of fencing. - Develop 6 AMPs.	- Authorize use of 27,529 livestock AUMs with additional authorization of use up to 16,630 suspended nonuse AUMs as determined to be available through monitoring of livestock forage supply and wildlife habitat trend. - Allow existing seasons of use. - Heavy utilization allowed on individual pastures within AMPs allowing rest. - Moderate utilization on all other allotments. - Exclude livestock use from sensitive plant populations in N. Ash Valley, and from riparian habitat along Dry Creek drainage. Support Needs - Same as Alternative I.	- Authorize cattle use of 18,601 AUMs after allocation of wildlife, watershed, and riparian needs (9,126 AUMs). - Existing seasons of use on all allotments. - Light grazing utilization on all allotments. - Maintain existing range improvements. - Exclude livestock use from sensitive plant populations in N. Ash Valley, and from riparian habitat along Dry Creek drainage. Alt. IIIa - No Grazing - No livestock grazing.	- Maintain existing livestock use of 28,213 AUMs. - Present seasons of use, Table 3-1. - Moderate utilization levels on all allotments. Support Needs - Continue implementation of 3 AMPs. - Maintain existing range improvements.
FISH AND WILDLIFE	- Deer winter range, sage grouse strutting grounds, and antelope habitats subject to current management.	- Improve browse on deer winter range. - Antelope habitats subject to current management.	- Improve meadow, spring, and riparian habitats. - Improve browse on deer winter range.	- Maintain deer winter range in present degraded condition. - Protect 7 known sage grouse strutting grounds.

Table 2-1 (continued)
Management Area 10
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
FISH AND WILDLIFE (continued)	- Improve ecological condition in riparian areas. Support Needs - Incorporate riparian management into grazing systems.	- Improve meadow, spring, and riparian habitats. - Maintain 7 sage grouse strutting grounds. Support Needs - Use prescribed burning and juniper thinning on 4,000 acres to rejuvenate decadent browse. - Fence meadows at 31 springs and 8 reservoirs to exclude livestock. - Restrict vegetative manipulations to protect sage grouse strutting grounds. - Fence 3/4 miles of Dry Creek drainage. - Restrict permanent development on strutting grounds and seasonally restrict disturbing activities from February 15 to May 1 around all sage grouse strutting grounds.	- Antelope habitats subject to current management. - Improve recruitment in aspen stands. - Protect 7 Strutting grounds and enhance nesting opportunities for sage grouse. Support Needs - Fence meadows at 31 springs and 8 reservoirs to exclude livestock. - Use prescribed burning on 1,500 acres and juniper thinning on 4,000 acres to rejuvenate decadent browse. - Fence 50 acres of aspen to exclude livestock in Cold Spring and Tule Lake Allotments. - Fence 3/4 miles of Dry Creek drainage.	- Manage 2,500 acres of antelope kidding grounds in present satisfactory condition.
MINERALS	- Continue present management.	- Allow mineral exploration and development in Hayden Hill area.	- Allow mineral exploration and development in Hayden Hill area.	- Allow existing mining, geothermal, and oil and gas exploration and development.

Table 2-1 (continued)
Management Area 10
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
MINERALS (continued)		- Exclude geothermal development from strutting grounds, deer winter range, and antelope kidding grounds and riparian zones.	- Exclude geothermal development from sage grouse strutting and antelope kidding grounds, deer winter range, and riparian zones. - No mineral development within Tule Mountain WSA.	
WILDERNESS	- Recommend #CA-020-211 Tule Mountain WSA (16,960 acres) as nonsuitable for wilderness designation.	- Recommend entire WSA as nonsuitable for wilderness designation.	- Recommend entire Tule Mountain WSA (16,950 acres) as suitable for wilderness designation.	- No wilderness designation. Tule Mountain WSA will continue to have interim management to maintain wilderness values.
TIMBER	- Continue intensive management on 1,323 acres of timber base lands.	- Continue intensive management on 1,137 acres of timber base lands.	- Exclude intensive management practices from Tule Mountain WSA. - Continue intensive management on all other timber base lands.	- Continue intensive timber management on 1,323 commercial timber base lands. Support Needs - Timber sales, reforestation, thinning.
FUELWOOD	- Permit harvest of juniper, mahogany, and commercial species on all public lands.	- Permit harvest of fuelwood except from fenced T&E plant populations in N. Ash Valley Allotment; direct cutting to open up juniper canopy to improve browse.	- Permit the harvest of fuelwood except from fenced T&E plant populations in N. Ash Valley Allotment and Tule Mountain WSA.	- Permits issued throughout area with demand directed toward 64,319 acres.
CULTURAL	- Protect only those sites with National Register potential.	- Recommend 3 sites for National Register designation.	- Recommend 3 sites for National Register designation.	- Continue protection of cultural values as provided by law.

Table 2-1 (continued)
Management Area 10
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
CULTURAL (continued)		Support Needs - Restrict OHV use to designated routes around the sites. - Establish buffer zones around National Register Sites.	Support Needs - Same as Alternative II.	
T & E PLANTS	- Provide minimal protection of sensitive plant species as required by Bureau policy.	- Protect and enhance sensitive plant populations in N. Ash Valley. Support Needs - Designate sensitive plant populations as a Research Natural Area. - Develop an HMP for the Research Natural Area. - Restrict OHV use to designated routes. - Recommend acquisition of private lands south of Ash Valley Road, if ever feasible.	- Protect and enhance sensitive plant populations in N. Ash Valley. Support Needs - Same as Alternative II.	- Continue protection of T&E plant species as provided by Bureau policy.
LANDS	- Improve manageability of isolated uneconomical tracts of public lands.	- Improve manageability of isolated uneconomical tracts of public lands. Support Needs - Same as Alternative I.	- Improve manageability of isolated uneconomical tracts of public lands considering wildlife values.	- Continue land disposal on a case-by-case basis.

Table 2-1 (continued)
Management Area 10
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
LANDS (continued)	Support Needs - Consider 6,852 acres of public lands for potential disposal.		Support Needs - Consider 4,633 acres of public lands for potential disposal.	

Table 2-1 (continued)
Management Area 11
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
RANGE	- Maintain existing cattle use of 421 AUMs. - Livestock operators to have lead in determining grazing management. Support Needs - Stock water developments. - Develop 2 AMPs (Upper Lake and ?).	- Authorize 168 cattle AUMs. - Livestock operators to have lead in determining grazing management. Support Needs - Stock water developments.	- Maintain existing cattle use of 421 AUMs. - Develop and implement AMPs on all livestock allotments. Alt. IIIa - No Grazing - No livestock grazing.	- Maintain existing cattle use up to 421 AUMs. - Present seasons of use, Table _____.
TIMBER	- Continue intensive management on 182 acres of base lands on a sustained yield basis.	- Continue intensive management practices on 104 acres of base lands. - Restrict surface disturbance within Fandango National Register District.	- Continue intensive management practices on 222 acres of base lands.	- Continue intensive management practices on 222 acres of commercial timber base lands. Support Needs - Precommercial thinning, timber sales, reforestation.
CULTURAL	- Protect only those sites with National Register potential.	- Designate 1 National Register District located within Fandango and Upper Lake Allotments. Support Needs - Establish a buffer zone around the National Register Site.	- Designate 1 National Register District located within Fandango and Upper Lake Allotments. Support Needs - Same as Alternative II.	- Protect only those sites with National Register potential.

Table 2-1 (continued)
Management Area 11
Alternatives

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
T & E PLANTS	- Provide minimal protection of T&E plants as required by Bureau policy.	- Protect and enhance T&E plant populations. Support Needs - Monitor sensitive plant populations annually.	- Protect and enhance T&E plant populations. Support Needs - Same as Alternative II.	- Continue protection of T&E plant species as required by Bureau policy.
LANDS	- Improve manageability of small isolated tracts of public lands. Support Needs - Consider 960 acres of public lands for potential disposal.	- Improve manageability of public lands along and adjacent to the East Warner Mountains. Support Needs - Consider 4,720 acres of public lands for potential disposal.	- Consider disposal of public lands on a case-by-case basis commersurate with public demand.	- Consider disposal of public lands on a case-by-case basis commensurate with public demand.

PROPOSED ALTERNATIVE AND RATIONALE

The Proposed Alternative was selected based on the issues raised throughout the planning process, public input, a set of decision criteria, and the environmental analysis developed on the previously-formulated alternatives.

The following dicussion explains the Proposed Alternative and the general rationale for selecting this alternative for the Alturas Planning Area.

Proposed Alternative

The Balanced Alternative has been chosen as the Proposed Alternative with the following exceptions:

- MA 6 would be managed according to the Production Alternative with the objective of specifically maximizing timber production.
- MA 10 incorporates part of the Preservation Alternative to protect aspen stands, fencing 50 acres of aspens from livestock grazing in the Cold Spring and Tule Lake Allotments.

Rationale

Goals were developed for each issue identified early in the planning process. Because of the interrelationship between issues, it was not always possible to meet the stated goal for each issue. Because we recognized this at the outset of the planning process, Decision Criteria were developed to assist in picking the best management alternative.

The reasons for selecting this Proposed Alternative were that:

1. Utilizing the Decision Criteria, it provides the best mix to meet the overall issue goals.
2. It allows wilderness for those areas that best meet the wilderness criteria.
3. It allows an optimum level of production while providing protection through management for fragile resources.
4. It excludes only 5,800 acres of public lands within Pit River Canyon from entry under the 1872 Mining Law. Additionally, all leaseable and saleable mineral commodities such as oil, gas, geothermal and other materials are precluded from entry.

   The remaining 98 percent of the Planning Area is open to mineral entry or lease application.

Wilderness Management Rationale

The Proposed Alternative recommends 5,800 acres as preliminarily suitable for wilderness designation for the following reasons:

Pit River

Of the 11,575 acres in the WSA, 5,800 acres were recommended as suitable. The recommended area contains several special features which enhance the wilderness values. The area adds to the diversity in the National Wilderness System and there are no other resource uses which would be foregone by wilderness designation. The 5,775 acres that are recommended as unsuitable are either: (1) due to their configuration, they are considered extremely difficult to manage; (2) existing ways and existing and potential range improvements would make management extremely difficult.

Tule Mountain

The entire area was recommended as nonsuitable because: (1) the area does not add to the diversity of the National Wilderness System; (2) private inholdings and numerous ways make manageability very difficult; (3) the area does not have any special features of note or high value wilderness characteristics; (4) the area contains commercial forest land, oil and gas lease acreage, and potential for range type conversion projects which would be foregone by wilderness designation.

East Warners

Nine scattered parcels totalling 4,000 acres contiguous to existing USFS South Warner Wilderness were considered unsuitable as a separate wilderness area and further unsuitable as add-on areas to the existing wilderness. These determinations were made through the land use planning process (Section 202, FLPMA) and consultation with the Modoc National Forest.

SUPPLEMENTAL PROGRAM INFORMATION AND GUIDANCE

Specific directives or guidance that pertain to the Alturas Planning Area are summarized in the Alturas AMS (U.S. Department of the Interior, 1982). Following are general policy statements that apply for all alternatives:

1. Lands will be acquired or exchanged in accordance with FLPMA and other applicable Federal laws and regulations, to assure more efficient management of the public lands and to reduce conflicts with other public and private landowners to provide more consistency and logic in land use patterns within the Alturas Planning Area. Public lands identified in the future for possible sale or exchange will be evaluated on a case-by-case basis. If they meet specific sale or exchange regulation requirements, they may be determined suitable for sale or exchange.

2. The public lands identified for potential disposal within the alternatives are those that have been screened and should be considered for disposal for greater management efficiency. All public lands within the Planning Area can be disposed of if they meet the disposal criteria of FLPMA, Federal laws and regulations, and would not jeopardize the management objectives (i.e., disposal would have to be in conformance with the management objectives of the plan). Disposal proposals not in conformance would be subject to the amendment process.

3. Agricultural lands that are suitable for disposal would be sold under the public sale authority of Section 203 of the Federal Land Policy and Management Act as consistent witht he objectives of this land use plan.

4. Rights-of-way, 302 leases, easements, and permits and R&PP applications will be processed in accordance with FLPMA and other applicable Federal laws and regulations to provide public and community services.

5. Use of existing utility corridors will be considered prior to granting rights-of-way (existing corridors are defined as 69 KV lines or higher).

6. The Resource Management Plan replaces and updates the classification of multiple use (C&MU) withdrawal covering public lands within Modoc County. A full range of land uses will be considered/evaluated on a case-by-case basis predictated upon the principles of this multiple-use plan.

7. Public lands currently identified for potential disposal within the alternatives would, during the interim, be managed under existing Bureau policies in their present state.

8. All mineral leasing, exploration and production will be allowed providing it is in conformance with the specific decisions of this plan and is environmentally acceptable as determined on a case-by-case basis.

9. Off-highway vehicle use areas on public lands would be assumed as "open" within this planning effort unless designated as "restricted or closed" within each alternative and issue.

Standard Operating Procedures

1. Land treatment areas and seedings will be rested until seedlings are sufficiently established to resist pull-up from grazing.

2. Construction of fences in wildlife use areas will meet BLM specifications to permit the movement of identified wildlife.

3. Livestock watering developments will be made available and safe for wildlife needs, as identified.

4. All raptor nest trees will be retained in fuelwood and timber management areas.

5. Fuelwood permits will stipulate:

   a. Use roads only when damage does not occur; damage is considered to occur whenever wheel tracks cause ruts greater than one inch in the road surface.

   b. During Fire Danger Activity Level 4, chain saw use and off road driving shall be prohibited after 1:00 p.m. When the Fire Danger Activity Level 5 is reached, chain saw use and off road driving shall be prohibited for the entire day. Chain saws used on forest and range lands must be equipped with an approved spark arrester mounted over the exhaust opening.

   c. Cutting of standing oak trees, dead or alive, shall be restricted to designated trees only.

   d. Slash shall be stacked within 50 feet of roads. Slash away from roads shall be cut down and scattered.

6. Special provisions will be added to timber sale and forest development project contracts. These provisions will deal specifically with mitigating environmental impacts that surface during the environmental analysis process. The special provisions will pertain to logging (cutting methods, yarding techniques); construction (requirements for construction or improvement of roads, fences, etc.); environmental protection (eagle and hawk nest protection, revegetation requirements, soil erosion protection measures, etc.); and fire protection (slash disposal requirements, fire equipment requirements, etc.). Provisions contained in the contracts will satisfy mitigation measures as contained in site-specific environmental analyses.

7. Before construction of range developments and vegetation manipulations, cultural resources will be inventoried and evaluated, and attempts to avoid adverse effects will be made. Where this is not possible, consultation will be made with the State Historic Preservation Officer (S.H.P.O.) and the Advisory Council on Historic Preservation to develop acceptable mitigative strategies in accordance with the Programmatic Memorandum of Agreement (dated January 14, 1980) between the Bureau and the Advisory Council. In addition, the views of responsible spokesmen of the local Native American community will be solicited. Conflicts will be resolved in accordance with 36 CFR 800 and in accordance with the Memorandum of Agreement signed by the California Native American Heritage Commission, the California S.H.P.O., and the BLM.

8. All water projects or projects which could influence the beneficial use of water will conform to BLM Best Management Practices Guidelines.

9. Spring sources generally will be fenced to prevent trampling of the immediate area. Livestock and big game water facilities will be provided outside the enclosure where the water source is important to big game distribution in the area or where necessary to maintain adequate livestock distribution within an allotment.

10. All disturbed areas will be reseeded with native and/or introduced species to provide ground cover.

11. New range developments and maintenance of existing developments within Wilderness Study Areas will meet the Bureau's Interim Management Policy.

12. Site specific endangered species inventories will be completed before any project is initiated. Endangered Species Act, Section 7 consultations will be conducted, if deemed necessary.

Livestock Management Program

Selective Management Categories

Included in Table 3-1 is a classification of allotments into selective management categories. This grading system is based upon the concepts that:

- Grazing allotments can be grouped into three resource management categories based on economics, conflicts, potential, forage condition, and management criteria.
- Grazing management intensity can be based on resource management needs.
- The grouping of grazing allotments into categories can establish a priority for the investment of public funds and management efforts.

Selective management directs funds and management to where they will be the most effective. Each allotment was analyzed and classified according to criteria developed during previous land use planning stages.

Additional Allotment Management Plans (AMPs) have been identified by allotment (Alternative 1). Because further consultation with graziers and other interested groups is still needed to achieve useable grazing systems, specific plans have not yet been identified. Projects and plans will be determined following completion of the Final EIS and implemented under the land use plan guidelines.

A description of the three management categories is as follows:

Custodial Category Criteria

- Present range condition is not a factor.
- Allotments have low resource production potential and are producing near their potential.
- Limited resource use conflicts/controversy may exist.

- Opportunities for positive economic return on public investment do not exist or are constrained by technological or economic factors.
- Present management appears satisfactory or is the only logical practice under existing resource conditions.
- Relatively small size.
- Land status variable, but generally contains little public land.

Maintenance Category Criteria

- Present range condition is satisfactory.
- Allotments have moderate or high production potential and are producing near their potential (or trend is moving in that direction).
- No serious resource use conflicts/controversy exist.
- Opportunities may exist for positive economic return from public investments.
- Present management appears satisfactory.
- Land status variable.

Improvement Category Criteria

- Present range condition is unsatisfactory.
- Allotments have moderate to high resource production potential and are producing at low to moderate levels.
- Serious resource use conflicts/controversy exists.
- Opportunities exist for positive economic return from public investments.
- Present management appears unsatisfactory.
- Land status and size is generally well blocked and large.

Priority of Implementation

Adjustments of livestock stocking levels and seasons of use would be completed only after a five year monitoring period.

Prioritization for funding and implementation of AMPs and range developments would be based on the allotment's management category:

First Priority - Improvement (I) Allotments
Second Priority - Maintenance (M) Allotments
Third Priority - Custodial (C) Allotments

Implementation of the Proposed Action would be prioritized as follows:

1. Begin monitoring program to determine any adjustment needs (livestock numbers, seasons of use, vegetative treatments).

2. Develop AMPs and identify land treatments.

3. Develop water facilities.

4. Construct fences.

5. Implement AMPs.

6. Develop land treatments.

7. Adjust stocking levels and seasons of use in accordance with monitoring results and in consultation with affected users.

Monitoring Program

Range

Monitoring will be conducted at two levels, each to answer a different set of questions. The first level will be for the purpose of assuring that grazing use is actually following the grazing plan. The second level will determine if the grazing plan is accomplishing the objectives set forth in the plan.

As Allotment Management Plans are developed, a detailed monitoring plan will be made part of each AMP. The monitoring system will be designed and tailored to the allotment.

The information elements of the grazing use monitoring program are outlined below:

1. Monitoring to assure plan is being followed.

    a. Actual use.
    b. Utilization map.
    c. Permittee/Range Manager inspection tour.

2. Monitoring to meet grazing plan objectives.

    a. Trend Studies

        1) Permanent transects.
        2) Permanent photo stations.
        3) Trend indicator summary.

    b. Special resource studies.

    Examples might be stream fisheries, archaeological sites, critical habitat, etc.

Fish and Wildlife

Monitor browse species utilizing transects in deer winter range to determine effectiveness of management actions, such as AMPs and vegetative manipulation projects in maintaining browse species.

Monitor response in habitat for targeted species in HMP areas.

Establish trend plots in selected aspen stands in conjunction with five year range monitoring program to establish wildlife habitat objectives to be incorporated into future allotment management plans and establishment of future stocking levels.

Monitor waterfowl production from wetland developments to determine effectiveness of the program.

Determine impacts to selected meadows from livestock grazing through condition and trend studies.

Monitor endangered or sensitive species populations to ensure viability and determine status of these species.

Wilderness

Collect observations from field personnel visiting wilderness study areas to insure interim management guidelines are met.

Threatened and Endangered Plants

Monitor all threatened and endangered plant locations, mainly by annual visits to the sites.

Wilderness Management Program

Wilderness Study Process

The Wilderness Act of 1964 provided for the establishment of a National Wilderness Preservation System with areas to be designated from the public lands, national forests, parks, and refuges. FLPMA included the public lands administered by BLM in the wilderness review process. Lands within the scope of this RMP were inventoried and potentially suitable lands were identified as Wilderness Study Areas (WSAs) in the Final Intensive Inventory document dated December, 1979. Through this inventory process and subsequent appeals, two WSAs were identified and carried through the wilderness program:

CA-020-103	Pit River Canyon	11,730 acres
CA-020-211	Tule Mountain	16,950 acres

The wilderness review process has three phases: inventory effort (completed December, 1979), study (to be completed through this land use planning), and report (to be completed by 1983). Inventory includes field investigation, public meetings, workshops, and written comments to identify lands meeting requirements in Section 2(c) of the Wilderness Act which are carried forward as WSAs. Study includes consideration of all values, resources, and uses to make preliminary determinations of suitable or nonsuitable for wilderness designation by Congress. Upon completion of this study phase, a report, which details the suitability recommendation, is forwarded to the Secretary of Interior who forwards it to the President and eventually on to Congress for designation of the suitable areas as wilderness.

During the period following identification as a WSA until final designation or nondesignation by Congress, WSAs will be managed as directed by Section 603 of FLPMA: "so as not to impair the suitability of such areas for preservation as wilderness." Mineral and grazing uses will be allowed to continue in the manner and degree in which they were being conducted on the date of approval of FLPMA, even if such use would impair wilderness suitability. The BLM is directed to prevent unnecessary and undue degradation of the lands and their resources and to afford environmental protection. Valid existing rights must be recognized in the management of these areas. Interim Management Policy and Guidelines for Land Under Wilderness Review, dated December 2, 1979, details interim management policy (IMP) for WSAs.

Implications of Wilderness Designation

Areas designated by Congress will be managed in accordance with the provisions of the 1964 Wilderness Act, the specific legislation approving wilderness designation, and the Bureau Wilderness Management Policy of September, 1981.

Chapter 3

Affected Environment

Chapter 3

AFFECTED ENVIRONMENT

INTRODUCTION

This chapter provides:

- A description of the environment as it presently exists to serve as a baseline for comparison with impacts projected in Chapter 4 for the Proposed Action and Alternatives.
- A description of only those components of the environment likely to be affected by implementation of the Proposed Action or Alternatives.
- No consideration of those components not likely to be significantly impacted, such as air quality and geology.

Area-wide resources:

- Range
- Wild horses and burros
- Fish and wildlife
- Timber and woodland
- Cultural resources
- Soil and water
- Recreation
- Wilderness
- Minerals
- Threatened and endangered plants
- Social and economic conditions

GENERAL RESOURCE AREA-WIDE DESCRIPTIONS

Range

The majority of the rangelands in the Planning Area were once occupied by sagebrush-bunchgrass vegetation. Through early intensive grazing practices and lack of post-fire seedings, some of these areas were invaded by less palatable, weedy, annual grasses. Additionally, the unchecked invasion by juniper on the rangelands has depleted the availability of water for use by perennial grasses. Woodland forests, including mountain mahogany, aspen, and western juniper, cover approximately 33 percent of the planning area (described in detail under timber section) in varying degrees. Commercial forest species cover 1 percent. Present range condition and livestock grazing use are shown in TABLE 3-1.

TABLE 3-1

Present Range Condition, Acreage, and Livestock Grazing Use

		Surveyed Ecological Range Condition on Public Lands												
Allotment	MA	Unsurveyed BLM Acreage	Excellent	Good	Fair	Poor	Woodland	BLM Acres	Total Acres	C/M/I Category	No. Users	No. Livestock	Season of Use	Active AUMs
S. Tablelands	1	0	0	1,059	8,288	6,228	429	16,004	17,558	M	3	1,001 C	04/16 - 06/30	2,504
N. Tablelands	1	772	0	320	18,182	3,846	0	23,120	23,726	M	4	1,692 C	04/16 - 06/30	4,010
W. Field	1	0	0	0	0	624	0	624	2,960	C	1	32 C	04/16 - 06/30	0
E. Field	1	0	0	0	2,902	962	0	3,864	4,496	M	1	50 C	04/16 - 06/30	467
Signal Butte	1	0	0	0	462	623	181	1,266	1,460	M	4	- NOT	LICENSED -	0
Pine Creek Mesa	1	0	0	0	1,573	484	0	2,057	2,363	M	1	171 C	04/16 - 05/31	257
Fitzhugh Field	1	0	10	163	0	0	112	285	285	C	2	8 C	04/16 - 08/31	36
Pine Creek Field	1	0	0	0	245	105	0	350	496	C	1	12 C	04/16 - 08/31	18
Corbie Field	1	26	0	95	62	0	0	183	682	C	1	6 C	04/16 - 08/31	27
Dervin Field	1	0	0	211	37	0	133	381	928	C	1	7 C	04/16 - 08/31	32
West Fitzhugh	1	0	0	0	252	0	0	252	537	C	1	- NOT	LICENSED -	0
Highway	1	80						80	80	C	1	4 C	11/01 - 11/30	4
Ryegrass	2	0	0	270	1,671	0	1,686	3,627	4,296	M	1	150 C	04/16 - 05/31	225
Portuguese	2	0	0	904	2,163	125	322	3,514	5,360	I	2	347 C	05/01 - 06/15	521
S. Graves	2	0	0	273	4,217	0	8,460	12,950	20,243	I	1	450 C	04/16 - 09/31	1,652
N. Graves	2	0	0	52	1,746	495	718	3,011	4,088	I	1	148 C	04/16 - 06/31	372
Mackey	2	0	0	154	453	115	168	890	1,427	I	1	26 C	04/16 - 06/30	49
Neer	2	0	0	211	148	0	652	1,011	3,097	C	1	11 C	04/01 - 10/31	80
West Side	2	0	0	697	1,331	24	119	2,171	2,910	I	1	63 C	04/01 - 05/31	129
Bailey Dorris	2	0	0	1,317	1,453	198	0	2,968	3,676	I	1	193 C	04/01 - 05/31	386
Cutoff	2	400						400	430	C	1	36 Y	04/16 - 05/31	41
Rocky Prairie	2	0	0	0	3,561	0	5,021	8,582	16,231	M	1	436 C	05/01 - 10/15	934
Flournoy Individual	2	0	0	233	170	0	1,098	1,501	5,115	C	1	56 C	04/16 - 09/15	70
Bacon	3	184						184	404	C	1	6 C	04/01 - 10/31	42
Strip	3	8,307						8,307	8,500	I	1	49 C	05/01 - 09/30	245
Fisher	3	628						628	1,878	C	1	4 C	04/01 - 10/31	28
Kelley	3	81						81	633	C	1	2 C	04/01 - 07/15	7
Rimrock	3	2,437						2,437	2,913	M	2	218 C	04/10 - 05/10	218
Black Canyon Rim	3	697						697	950	C	1	13 C	05/16 - 09/30	59
S-X	3	766						766	1,079	C	1	10 C	04/01 - 10/31	56
Stevens	3	240						240	240	C	1	- NOT	LICENSED -	0
Stull	3	480						480	480	C	1	- NOT	LICENSED -	0
Hastings	3	360						360	360	C	1	- NOT	LICENSED -	0
X-L	3[1/]	1,452	0	0	137	0	0	1,589	4,489	C	1	57 C	04/16 - 06/30	143
Capik	4	0	0	215	244	104	0	563	623	M	1	35 C	05/01 - 10/31	48
Christopher	4	137						137	1,010	C	1	10 C	05/16 - 06/15	10

TABLE 3-1 (continued)

Present Range Condition, Acreage, and Livestock Grazing Use

		Surveyed Ecological Range Condition on Public Lands												
Allotment	MA	Unsurveyed BLM Acreage	Excellent	Good	Fair	Poor	Woodland	BLM Acres	Total Acres	C/M/I Category	No. Users	No. Livestock	Season of Use	Active AUMs
Cloud	4	0	0	0	0	0	81	81	988	C	1	3 C	06/16 - 09/15	9
Russell Slough	4	0	0	124	759	69	0	952	1,544	M	1	173 C	04/16 - 10/26	119
Roberts Creek	4	10	0	0	184	0	0	194	439	C	1	2 C	05/01 - 10/31	12
Brunnemer	4	0	0	9	31	0	0	40	40	C	1	1 C	04/01 - 08/31	5
Gardner	4	12	0	284	44	0	0	340	1,252	C	1	6 C	04/01 - 09/31	23
Crowder	4	10	0	1,009	1,160	0	52	2,231	3,157	I	1	53 C	05/01 - 07/31	160
Lakeshore	4	385	0	38	137	0	0	560	943	C	1	20 C	04/16 - 05/01	10
Hagge	4	400						400	800	C	1	11 C	04/01 - 06/30	33
Hughes	4	360						360	760	C	1	50 C	04/01 - 06/31	24
Perry	4	33	0	119	0	0	0	152	1,266	C	1	24 C	05/01 - 05/31	24
Prock	4	531						531	2,393	C	1	29 C	04/16 - 06/15	58
Russell	4	36	0	83	0	0	0	119	244	C	1	4 C	04/01 - 05/31	8
Thoms Creek	4	24	0	0	289	0	0	313	313	C	1	46 C	04/16 - 05/31	69
Sternes	4	0	0	0	78	0	0	78	556	C	1	10 C	05/01 - 06/30	20
Brown Field	4	616						616	970	C	1	7 C	04/16 - 08/31	32
Porter Reservoir	4	160						160	160	C	1	15 C	04/16 - 05/15	15
Loomis	5	575						575	2,948	C	1	12 C	05/01 - 11/30	84
Chase Valley	5	2,340						2,340	2,686	I	4	180 C	04/16 - 05/31	201
Clark	5	157						157	157	C	1	4 C	05/01 - 07/31	12
Eicholz	5	189						189	7,359	C	1	9 C	04/01 - 06/30	27
Turner Canyon	5	790						790	1,412	C	2	73 C	04/01 - 05/15	110
Haury	5	814						814	1,626	C	1	100 C	04/16 - 05/15	64
Hitchens	5	2,296						2,296	4,330	C	1	25 C	04/16 - 11/15	175
Hayes Spring	5	651						651	801	C	2	104 C	04/01 - 06/15	103
Hines	5	326						326	697	C	1	13 C	04/01 - 06/30	39
Major	5	481						481	481	C	1	49 C	04/16 - 05/30	73
S. Juniper	5	481						481	492	C	1	64 C	04/16 - 04/30	32
Knudson	5	242						242	242	C	1	9 C	05/16 - 09/15	36
Kramer	5	821						821	1,554	C	1	200 C	04/16 - 05/30	125
Dibble Hill	5	485						485	1,305	M	1	28 C	04/16 - 05/15	28
North Dibble	5	544						544	751	C	1	35 C	09/01 - 10/31	53
Harper Hill	5	0	0	71	199	0	263	533	2,186	C	1	18 C	04/16 - 09/30	86
Barber Canyon	5	388						388	623	C	1	- NOT	LICENSED -	0
Radio Hill	5	80						80	80	C	1	2 C	09/01 - 10/31	4
Reclamation	5	0	0	0	163	0	0	163	210	C	1	11 C	04/16 - 05/30	16
South Barber	5	0	0	0	80	0	0	80	80	C	1	- NOT	LICENSED -	0

TABLE 3-1 (continued)

Present Range Condition, Acreage, and Livestock Grazing Use

Allotment	MA	Unsurveyed BLM Acreage	Surveyed Ecological Range Condition on Public Lands: Excellent	Good	Fair	Poor	Woodland	BLM Acres	Total Acres	C/M/I Category	No. Users	No. Livestock	Season of Use	Active AUMs
Round Valley	5	0	0	0	228	0	0	228	304	C	1	25 C	04/16 - 10/31	61
Indian Peak	5	655						655	1,105	C	1	8 C	04/16 - 09/30	44
Howell Canyon	5	312						312	1,200	C	1	- NOT LICENSED -		0
Mamath	5	605						605	2,278	C	1	31 C	04/01 - 05/15	46
N. Juniper	5	1,728						1,728	1,974	C	1	105 C	04/01 - 06/15	263
Monchamp	5	86						86	89	C	1	2 C	05/01 - 07/30	6
Myers	5	155						155	284	C	1	2 C	04/16 - 10/31	13
Barrows	5	714						714	2,974	M	1	47 C	04/16 - 06/30	69
Butte Creek	5	443						443	527	C	1	41 C	04/16 - 05/16	42
Piper	5	73						73	312	C	1	2 H	04/16 - 09/15	10
Roberts Reservoir	5	1,062						1,062	2,958	C	1	12 C	05/01 - 08/15	43
Roberts Individual	5	320						320	481	C	1	61 C	04/16 - 05/15	61
Pilot Butte	5	140						140	275	C	1	30 C	05/01 - 06/15	21
Big Valley Mountain	6[2]	0	0	0	0	0	4,137	4,137	4,137	C	1	40 C	04/16 - 06/15	80
Babcock	7	0	0	0	0	0	551	551	2,641	C	2	20 C	04/16 - 06/16	40
W. Beaver Creek	7	505	0	105	5,637	82	1,042	7,371	7,902	I	3	223 C	04/16 - 06/30	558
Dixie Valley	7	0	0	538	5,830	5,419	4,545	16,332	23,066	I	1	740 C	04/01 - 12/30	1,291
Bald Mountain	7	0	0	322	2,885	792	2,263	6,262	8,081	I	1	261 C	04/17 - 05/30	392
Avery	7	0	0	0	122	0	0	122	122	C	1	25 C	05/01 - 05/30	18
E. Beaver Creek	7	342	0	0	186	2,019	624	3,171	3,979	I	1	504 C	04/16 - 05/31	756
Bend	7	0	0	0	686	0	0	686	1,406	C	1	33 C	04/16 - 05/31	50
Thompson	7	0	0	352	2,309	0	2,280	4,941	6,802	I	1	502 C, 6 H	04/01 - 10/31	613
Muck Valley	7	4,915	0	226	120	1,548	4,845	11,654	20,090	I	1	343 C	05/04 - 08/15	1,371
Plantation	7	0	0	0	120	226	1,097	1,443	1,540	I	1	267 C	04/16 - 05/15	267
Dixon Hill	7	320						320	640	C	1	30 C	05/16 - 06/30	30
Muck Valley	8[3]	0		307	2,872	1,118	2,038	6,335	6,335	- SEE ALLOTMENT SUMMARY IN MA 7 -				
E. Beaver Creek	8[3]	0				525		525	525	- SEE ALLOTMENT SUMMARY IN MA 7 -				
River Pasture	8	0		120	715	59	2,391	3,285	5,474	I	1	190 C	04/17 - 05/30	285
Thompson	8[3]	160			400		40	600	600	- SEE ALLOTMENT SUMMARY IN MA 7 -				
Round Barn	8	830						830	1,740			- NOT LICENSED -		0
Termo/Lane	9	0	3,861	0	2,518	0	0	6,379	14,120	I	1	574 C	06/10 - 10/20	531
Lower Highway	9	636						636	636	C	1	80 C	06/01 - 06/30	160
Fillman-Diablo	10	599	130	546			349	1,624	5,504	C	1	30 C	05/01 - 09/30	150
Silva Flat	10	0	0	7,824	4,254	30	2,642	14,750	18,097	M	4	290 C, 4 H	05/01 - 09/30	1,249
Daisy Dean	10	0	0	290	7	0	177	474	609	C	1	17 C	05/16 - 09/30	80
Hencraft	10	0	0	439	94	0	684	1,217	10,914	C	1	31 C	05/15 - 09/05	154

TABLE 3-1 (continued)

Present Range Condition, Acreage, and Livestock Grazing Use

			Surveyed Ecological Range Condition on Public Lands										
Allotment	MA	Unsurveyed BLM Acreage	Excellent	Good	Fair	Poor	Woodland	BLM Acres	Total Acres	C/M/I Category	No. Users	No. Livestock	Season of Use	Active AUMs
Cold Springs	10	774	84	12,823	3,681	0	316	17,678	18,839	I	1	468 C	05/01 - 10/15	2,157
Cramer	10	645						645	987	C	1	9 C	04/16 - 08/15	36
Marr	10	73						73	219	C	1	1 C	04/16 - 08/15	4
Crabtree	10	340						340	660	C	1	27 C	05/01 - 10/15	15
South McDonald	10	1,059	1,428	4,531	4,230	12	0	11,260	11,990	I	2	255 C	04/16 - 10/30	1,616
McDonald Mountain	10	466	0	2,423	7,196	0	2,191	12,276	14,126	I	1	401 C	04/16 - 10/30	2,608
Coffin	10	586	0	0	711	0	0	1,297	2,217	C	1	10 C	04/16 - 10/30	70
Brockman	10	0	0	70	484	0	433	987	5,880	C	1	20 C	04/16 - 10/30	130
Hall Field	10	0	0	1,257	0	0	0	1,257	2,510	M	1	59 C	04/16 - 09/15	192
Dry Cow	10	0	0	5,203	0	0	0	5,203	6,338	I	1	216 C	05/16 - 10/20	1,103
Mitchell Hill	10	0	0	2,672	3,103	0	1,800	7,575	8,041	I	4	179 C	04/16 - 09/15	867
Tule Lake	10	542	1,914	17,938	20,043	268	8,185	48,890	59,783	I	6	1,925 C	05/01 - 09/30	9,054
Deep Canyon	10	1,570	0	370	63	0	395	2,398	4,812	C	1	45 C	04/16 - 09/15	225
Warm Springs	10	0	0	606	341	0	156	1,103	4,114	M	1	76 C	04/16 - 08/15	128
Nelson Corral	10	2,556	0	4,469	5,486	0	856	13,367	16,881	M	1	542 C	05/16 - 09/20	2,256
South Fork	10	0	0	422	866	0	2,516	3,804	5,649	M	1	261 C	05/01 - 09/15	1,175
North Ash Valley	10	0	4,104	7,712	1,826	0	3,539	17,181	25,577	I	2	571 C	04/16 - 09/30	2,505
South Ash Valley	10	0	2,481	2,057	3,746	0	8,540	16,824	21,557	I	1	406 C	05/15 - 09/15	1,624
Anderson	10	0	0	499	376	0	0	875	1,465	I	1	17 C	04/16 - 09/30	90
Wing	10	0	0	1,681	52	0	428	2,161	6,154	C	1	1,000 S	05/16 - 10/25	372
Dry Valley	10	0	0	871	377	0	1,052	2,300	5,447	C	1	113 C	04/16 - 09/30	273
Said Valley	10	0	23	406	25	0	372	826	1,881	I	1	130 C	08/25 - 09/06	60
Summit/Williams	10	0	112	30	735	0	958	1,835	7,826	C	1	28 C	05/01 - 09/30	140
Clarks Valley	10	115						115	935	C	1	6 C	05/01 - 09/30	30
Owl Creek	11	240						240	240			- NOT LICENSED -		0
Milk Creek	11	120						120	120			- NOT LICENSED -		0
Granger	11	1,300						1,300	1,300	C	1	20 C	04/15 - 05/30	30
Cedar Creek	11	440						440	440			- NOT LICENSED -		0
McCulley	11	1,000						1,000	1,000	C	1	10 C	05/01 - 06/30	20
Soldier Creek	11	40						40	40			- NOT LICENSED -		0
Mill Creek	11	40						40	40			- NOT LICENSED -		0
Goose Creek	11	40						40	40	C	1	2 C	05/01 - 09/30	10
Buck Mountain	11	120						120	120	C	1	10 H	04/01 - 10/31	19
Upper Lake	11	0	0	0	0	720	0	720	720	C	1	50 C	05/01 - 07/30	
												9 C	08/01 - 09/30	168

TABLE 3-1 (continued)

Present Range Condition, Acreage, and Livestock Grazing Use

		Surveyed Ecological Range Condition on Public Lands												
Allotment	MA	Unsurveyed BLM Acreage	Excellent	Good	Fair	Poor	Woodland	BLM Acres	Total Acres	C/M/I Category	No. Users	No. Livestock	Season of Use	Active AUMs
Fandango	11	1,000						1,000	1,000	C	1	93 C	04/15 - 05/15	
												47 C	09/01 - 09/30	140
South Bidwell	11	300						300	300	C	1	26 C	04/01 - 04/30	26
Bidwell Creek	11	80						80	80			- NOT	LICENSED -	0
Bidwell	11	40						40	40	C	1	2 H	04/15 - 09/30	8
Isolated Tracts		6,267						6,267	6,267					
TOTAL - 138 Allotments		65,637	14,147	85,020	134,745	26,820	80,937	401,826	591,724		168	18,303		50,464

1/ X-L Allotment is divided by Highway 395 between MA 3 and MA 4. (80 AUMs and 63 AUMs, respectively.)
2/ Big Valley Mountain Allotment is in MA 6 and MA 7.
3/ Portions of Muck Valley, Thompson, and E. Beaver Creek are in MA 7 and MA 8.

Following are brief descriptions of the three dominant vegetative communities:

Annual Grasslands

Most of the acreage in MA 1 and portions of MA 5 and MA 7 are dominated by cheatgrass and medusahead. There are smaller areas of perennial grasses, but not in sufficient amounts to out-compete the annual grasses. These ranges are grazed in the early spring to utilize the annuals in their early, more palatable growth stage.

Perennial Grasses/Sage

The remaining MAs not mentioned under Annual Grasslands are covered predominately by perennial grasses, low sage, and big sage with smaller inclusions of annual grasses. The longer season of palatability of these perennial grasses to livestock allows a longer season of use.

Mountain Shrubs

All MAs contain communities of mountain shrubs important to wildlife species. Some of the shrub communities are extensive and diverse while other areas have remnant populations due to factors such as overshadowing and excessive water draw by invading junipers, intensive grazing pressures, and wildfire. Shrubs important to wildlife and livestock include bitterbrush, snowberry, chokecherry, and bitter cherry.

Ecological range condition for the planning area is as follows:

Classes	Acres
Poor	26,100
Fair	134,745
Good	85,020
Excellent	14,147
Woodland	80,937
Unsurveyed	54,610
Isolated Tracts	6,267
TOTAL	401,826*

* MA 11 acreage not shown in this Table (see Table 3-1).

Wild Horses and Burros

One herd of more than 150 wild horses and burros, part of the East Herd Unit, resides in the Strip Allotment. The herd is presently cooperatively managed with the Modoc National Forest Service as outlined in the Devils Garden Plateau Wild Horse Management Plan.

Fish and Wildlife

The planning area contains approximately 225 species of birds and numerous mammals, reptiles, and amphibians to bring the total wildlife species count to over 300. Only certain key species and their habitats are accounted for in management actions and thus given consideration in this plan. These species include economic species such as mule deer and pronghorn antelope, upland game species including California quail and sage grouse, all fish and their habitats, and raptors in general, including the endangered southern bald eagle and potentially sensitive Swainson's hawk.

Mule Deer

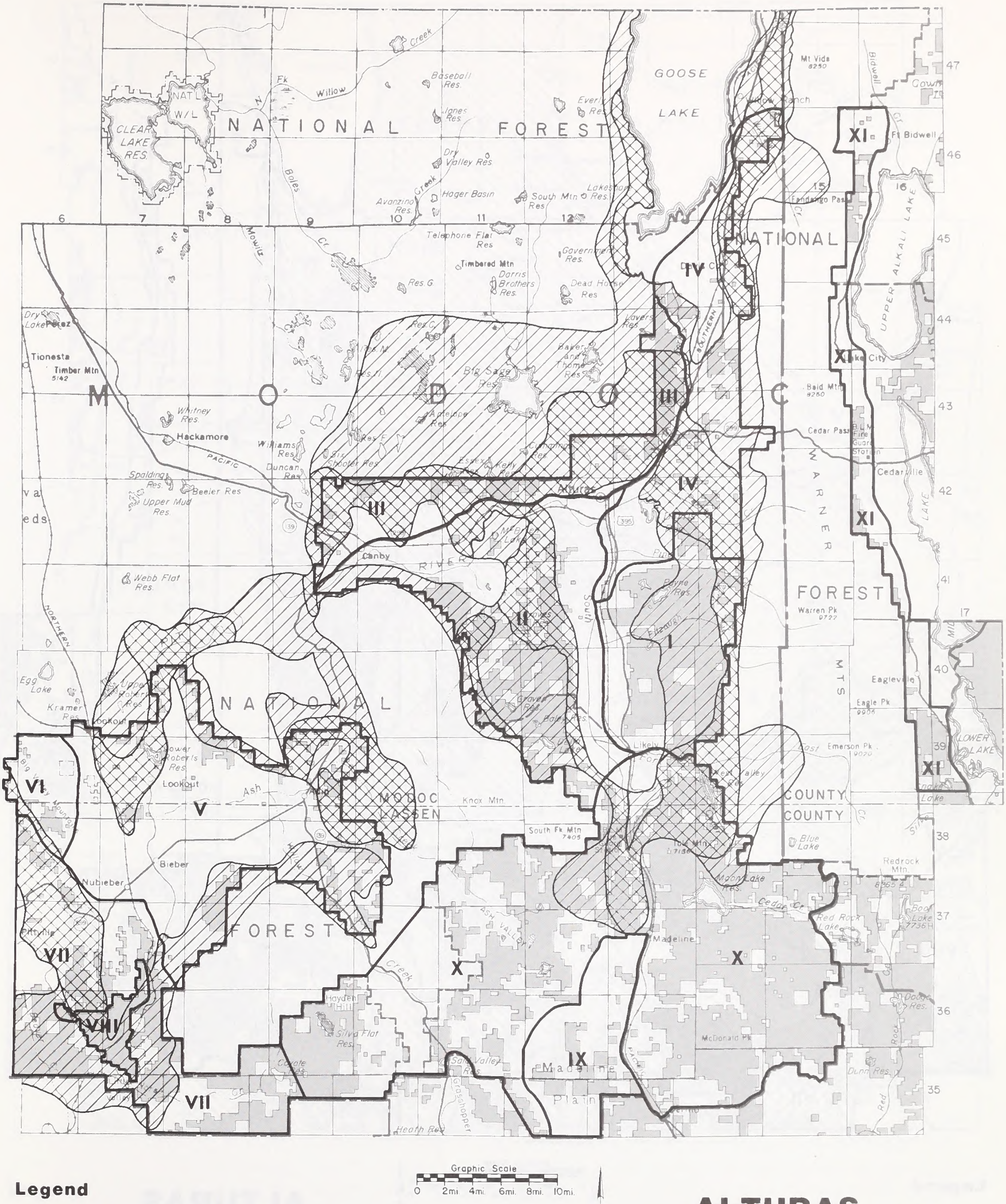
The Alturas Planning Area supports portions of three deer herds (MAP 3-1). The Warner Mountain herd contains approximately 7,000 animals which utilize public lands primarily as wintering habitat. The Adin herd, which is largely unstudied, utilizes higher elevation forest land and winters on public lands in Big Valley and scattered parcels north of Adin. The Day Bench herd winters on the far western edge of the planning area and is a component of the Glass Mountain herd. This Day Bench herd is particularly critical due to lagging fawn production of approximately 10 per 100 does compared to approximately 35 to 40 in other herds in California Department of Fish and Game Region One. As expected, winter fawn losses are around 50 percent. Constricted migration corridors from residential development has been identified as a key problem with this herd. Other deer herd segments with relatively small migration patterns occur at MacDonald Mountain, Likely Mountain, and Tule Mountain.

Pronghorn Antelope

Approximately 3,000 of the nearly 7,000 antelope in northeastern California utilize public lands in the planning area in three subherds (MAP 3-2). Winter range for the entire Likely Tables subherd, the largest subherd, containing 2,250 animals, is contained in MAs 1, 2, and 3. This area is also utilized as summer range, though many of these animals summer on the Devil's Garden (U.S. Forest Service land). The Big Valley subherd utilizes public lands in the Big Valley, Dixie Valley, and Muck Valley portions of MAs 5 and 7. Most public lands here are utilized as winter and summer range for 600 to 1,200 animals. The Lassen subherd is a large herd of 1,400 animals which utilizes a small portion of the planning area as summer range in the Madeline Plains and Silva Flat areas.

Sage Grouse

MAP 3-3 shows the distribution of sage grouse within the planning area. Population estimates are not available at this time. Some reduction in active strutting areas does seem to be occurring as a result of human encroachment; however, populations still remain at viable levels.



Legend

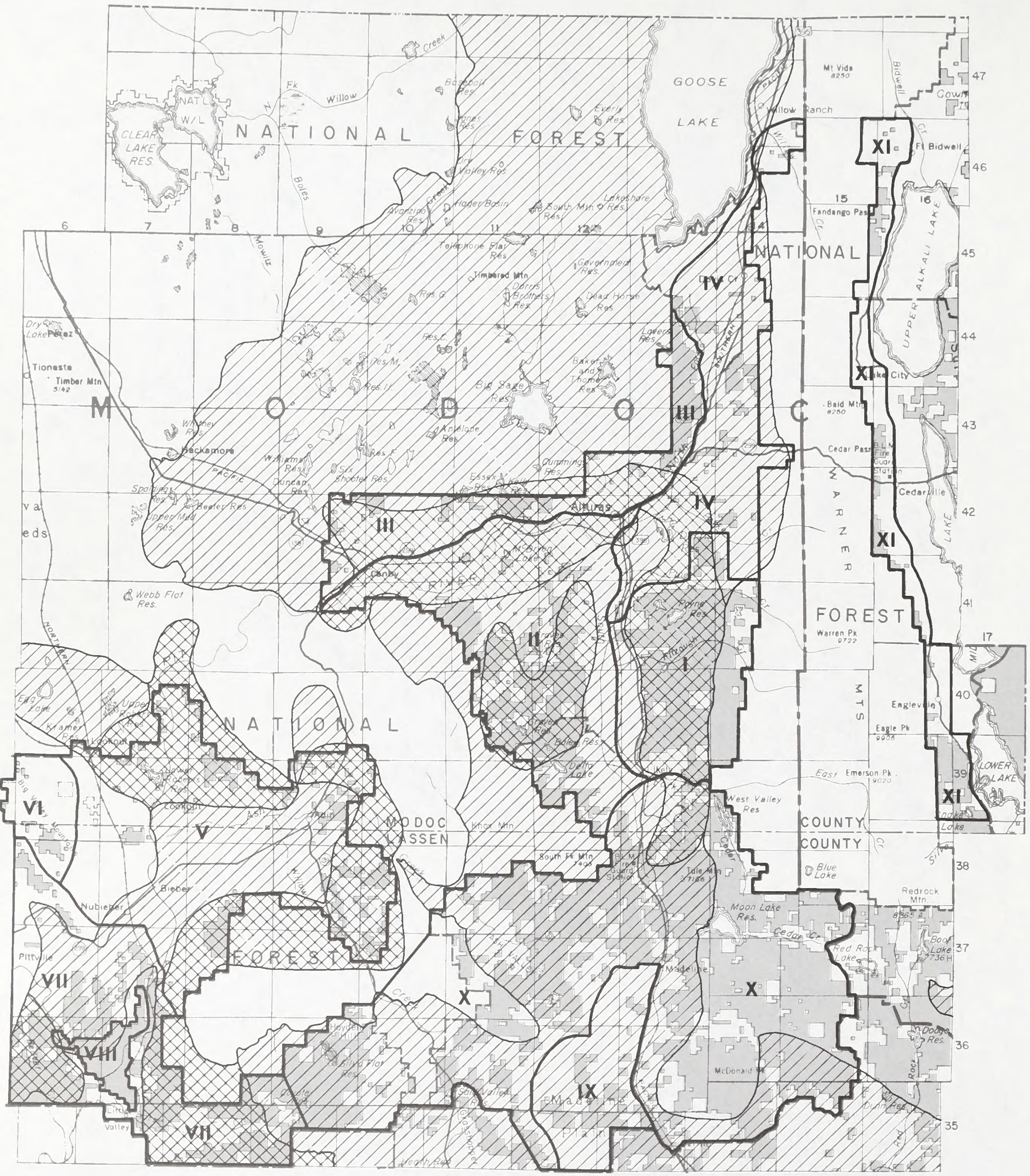
— **Management Area Boundary**

▨ **Deer Winter Range**

▩ **Critical Deer Winter Range**

Map 3-1

ALTURAS PLANNING AREA DEER WINTER RANGE



Legend

Management Area Boundary

▨ Yearlong Range

▩ Winter Range

Graphic Scale

0 2mi. 4mi. 6mi. 8mi. 10mi.

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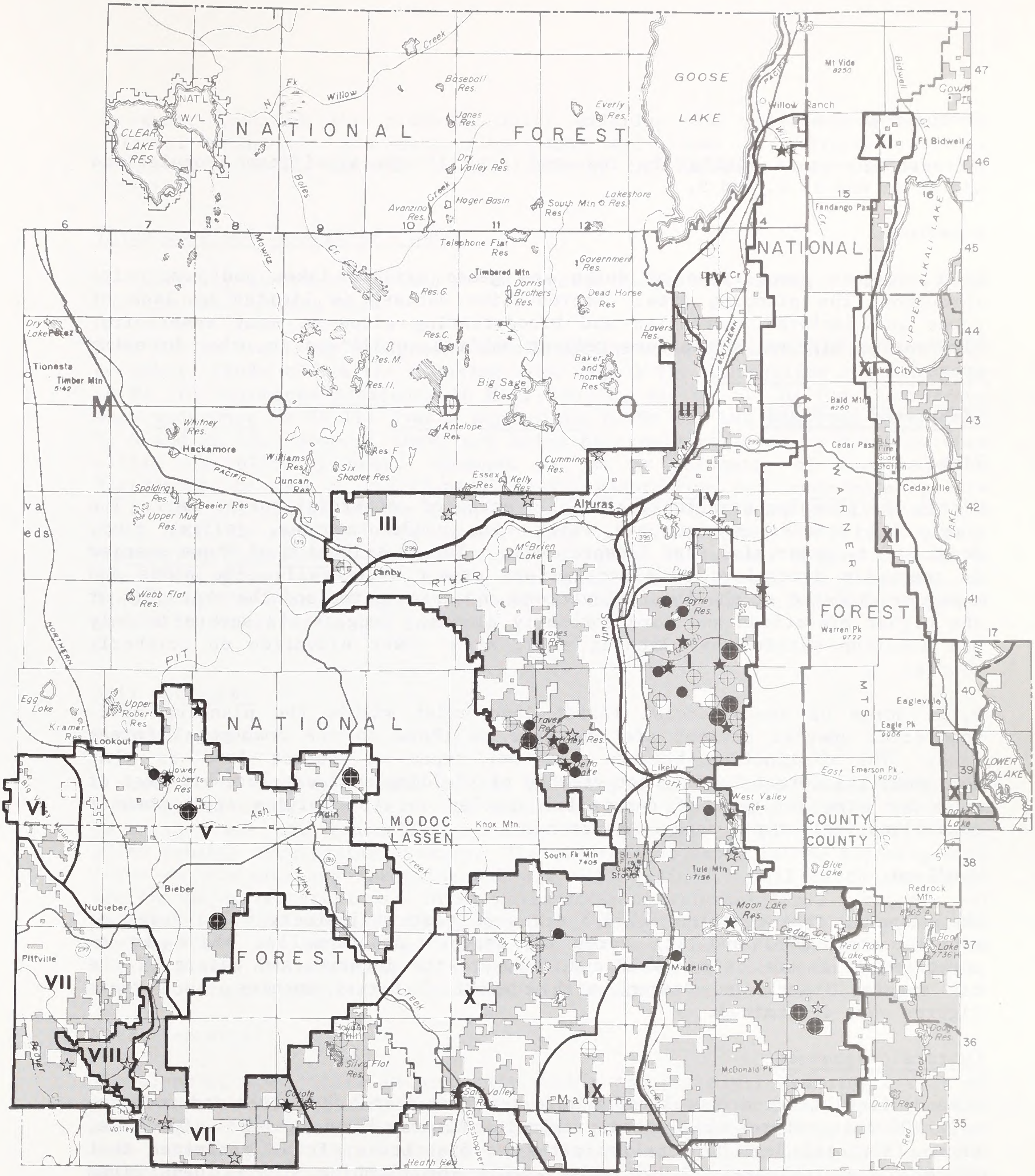
ALTURAS PLANNING AREA

PRONGHORN ANTELOPE HABITAT

Map 3-2



Legend

- **Management Area Boundary**
- ⊕ – **Sage Grouse Historic Strutting Ground**
- ⊕ – **Sage Grouse Active Strutting Ground**
- ★ – **Sport Fishery**
- ☆ – **Native Fishery**
- ● – **Waterfowl Habitat**

Map 3-3

ALTURAS PLANNING AREA

MISCELLANEOUS WILDLIFE HABITAT

Southern Bald Eagle

No nesting occurs within the resource area though significant populations winter in MAs 3, 4, and 5.

Waterfowl

Good resident populations of ducks and geese utilize lakes and reservoirs throughout the planning area. Reproductive success is limited by lack of cover and isolated incubation and brood-rearing sites at many reservoirs. Fluctuating migrant populations reflect habitat conditions in other breeding areas.

Timber and Woodland

Timber

Within the planning area there are 5,124 acres of commercial forest land. The commercial species present are white fir, ponderosa pine, jeffrey pine, Douglas-fir, sugar pine, and incense cedar. The distribution of these species is generally determined by elevation and aspect. Generally, the pines and cedar are located at the lower elevations and drier sites and the white fir at the higher elevations and more northerly slopes. Douglas-fir occurs in only one location within the planning area, at a lower elevation on northerly slopes.

9,153 acres of noncommercial forest land exist within the planning area. Commercial species present are the same as those on the commercial forest land. The distinction between the two types of forest land is that noncommercial forest land is not capable of yielding at least 20 cubic feet of wood per acre per year of commercial species due to limiting environmental conditions (soil type, aspect, moisture).

Woodland

The planning area contains 125,873 acres of western juniper, 6,783 acres of mountain mahogany, and 125 acres of aspen. Additionally, there is an undetermined amount of oak woodland. Due to the interspersed nature of the oak species (black and Oregon) with commerical forest species, no acreage figures were determined.

Cultural Resources

Susanville District archaeologists have surveyed over 3,000 acres and recorded over 300 cultural resource sites within the Alturas Planning Area. Of these, 45 are National Register Quality sites or districts. It is estimated that there are approximately 2,000 sites within the planning area. These sites range in age from 6,000 B.C. until present time. Site types include large village sites, occupation sites, rock hunting blinds and rock rings, midden sites, rock art sites, caves and rock shelters, lithic scatters, historic sites, and ethnographic and native American religious and gathering sites.

A report covering the planning units existing and projected data base, cultural management and monitoring plans and Class II cultural resource inventory data and methods is available at the Resource Area and District Office.

Threatened and Endangered Plants

No federally listed threatened or endangered plants are known to occur within the Alturas Planning Area.

Five plants requiring management consideration under present BLM policy occur on public lands within the planning area (MAP 3-4): *Astragalus tegetarioides* in MA 10; *Eriogonum prodicuum* in MA 2, MA 10, and MA 11; *Galium glabrescens* ssp. *modocense* in MA 11; *Ivesia paniculata* in MA 10; and *Lomatium ravenii* in MA 9 and MA 10. None of these are being adversely affected by existing uses within the planning area. Changes in use or intensity of use could be detrimental to some of the plants. *Galium glabrescens* ssp. *modocense* appears to be the only plant of the group that is noticeably grazed by livestock and then this is usually only under heavy livestock use. A sixth plant, *Antennaria flagellaris*, was discovered on public lands near Hayden Hill in MA 10. This plant presently has no protective status, but is proposed for listing by the State of California and the California Native Plant Society and should be protected in the interim.

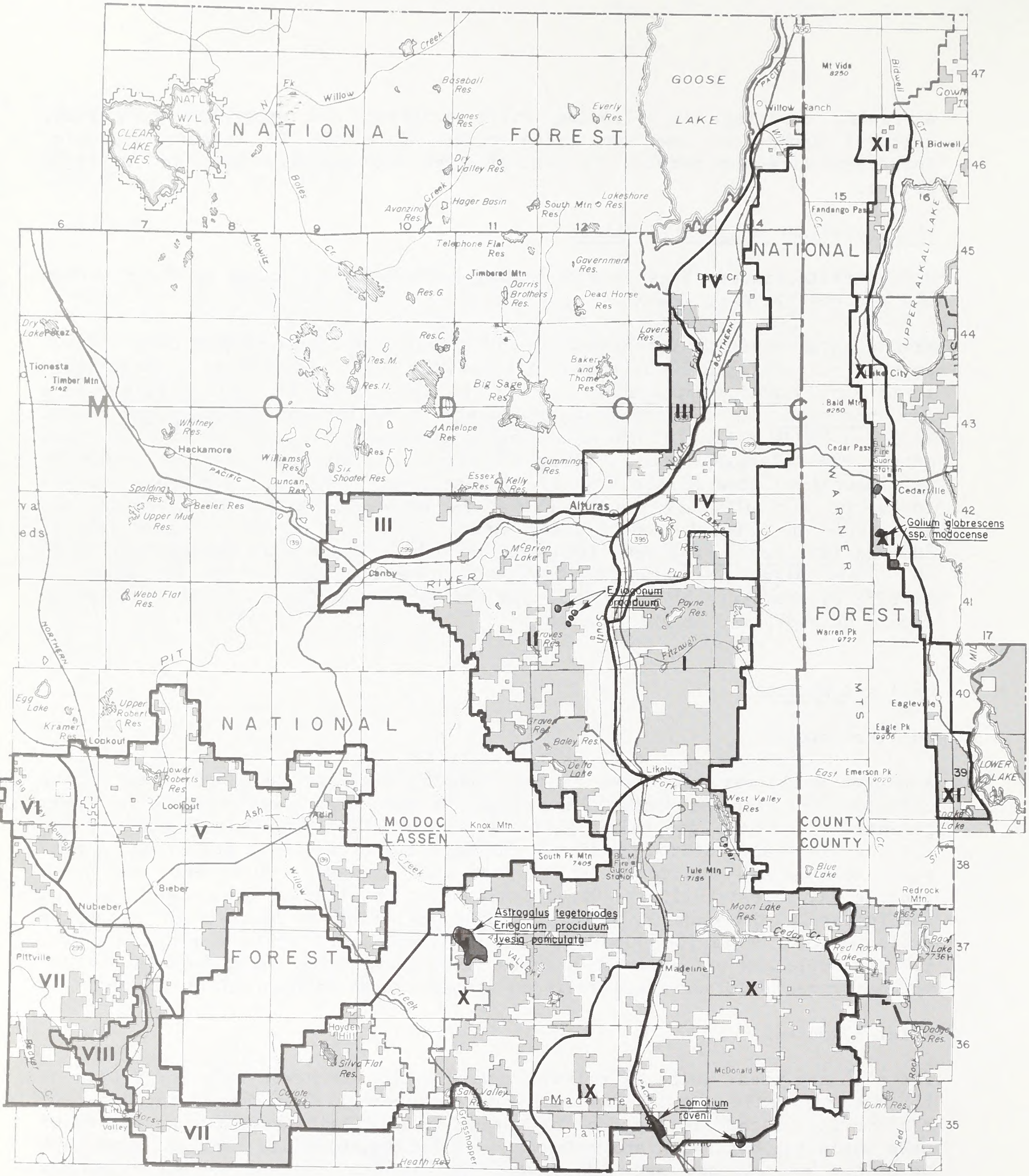
Soil and Water

Soil Resources

A modern soil survey of most of the planning area has been completed by the Soil Conservation Service. The soils in the area vary widely in their potential, but are generally suitable for existing or planned uses. Some sites exhibit accelerated erosion. The majority of soils in the planning area occur on plateaus and mountains and are well drained. Soil depth and slope are the major restrictions. Other soils occur on alluvial fans, terraces, and escarpments. Shallowness, heavy textures, restrictive layers, and excessive drainage are the major limitations for those soils. Flood plain and low terrace soils are primarily on private land. Where they occur on public land, the major restrictions are associated with depth to hardpan and drainage.

Water Resources

The planning area, which is primarily within the Pit River Hydrologic Unit of the Central Valley Basin, contains numerous perennial streams, springs, and reservoirs. Water flowing from or through public lands supports a variety of uses including both warm and cold water fisheries, wildlife habitat, livestock watering, recreation, and downstream irrigation. Currently, only the few water sources supporting meadow systems and cold water streams are exhibiting degradation which is impacting the beneficial uses of those waters. Fitzhugh



Graphic Scale

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Legend

— **Management Area Boundary**

▬ **Threatened or Endangered Plant Location**

Map 3-4

ALTURAS PLANNING AREA

THREATENED AND ENDANGERED PLANTS

Creek and Sheep Valley have problems which have been reported to the State Water Resources Control Board. Pine Creek and Horse Creek also support cold water fisheries. Water quality data is maintained in the BLM Susanville District and Alturas Area Offices.

Abundant water of suitable quality is available for livestock watering purposes, although some developments are needed to enhance distribution and management.

Recreation

Recreational use is widely dispersed throughout the planning area. Reservoirs and creeks provide a variety of fisheries. Mule deer, pronghorn antelope, sage grouse, and upland game species attract hunters from late August through January. OHV use is scattered throughout the planning area and is most often associated with hunting and fishing activities. Visitor use days in 1981 totaled 151,500; hunting, camping, and OHV Use - 148,000 days; fishing - 3,500 days.

Wilderness

The Alturas Planning Area contains two WSA's totaling 28,525 acres of public land (MAP 3-5):

MA	WSA No.	Name	Acreage
8	CA-020-103	Pit River Canyon	11,575
10	CA-020-211	Tule Mountain	16,950

Population Centers

Two Standard Metropolitan Statistical Areas (SMSAs - see Glossary for a definition) fall within a day's drive (5 hours) of the wilderness study areas in this EIS.

SMSA: Sacramento
Reno

Geographic Distribution

Five existing wilderness areas are located within 100 miles of the EIS WSAs, totaling 239,507 acres.

Designated wilderness areas within 100 miles of the WSAs:

Name	Administering Agency	Size
Caribou	USFS	18,825
Lassen Volcanic NP	NPS	78,982
Lava Beds NM	NPS	56,920
South Warner	USFS	68,445
Thousand Lakes	USFS	16,335

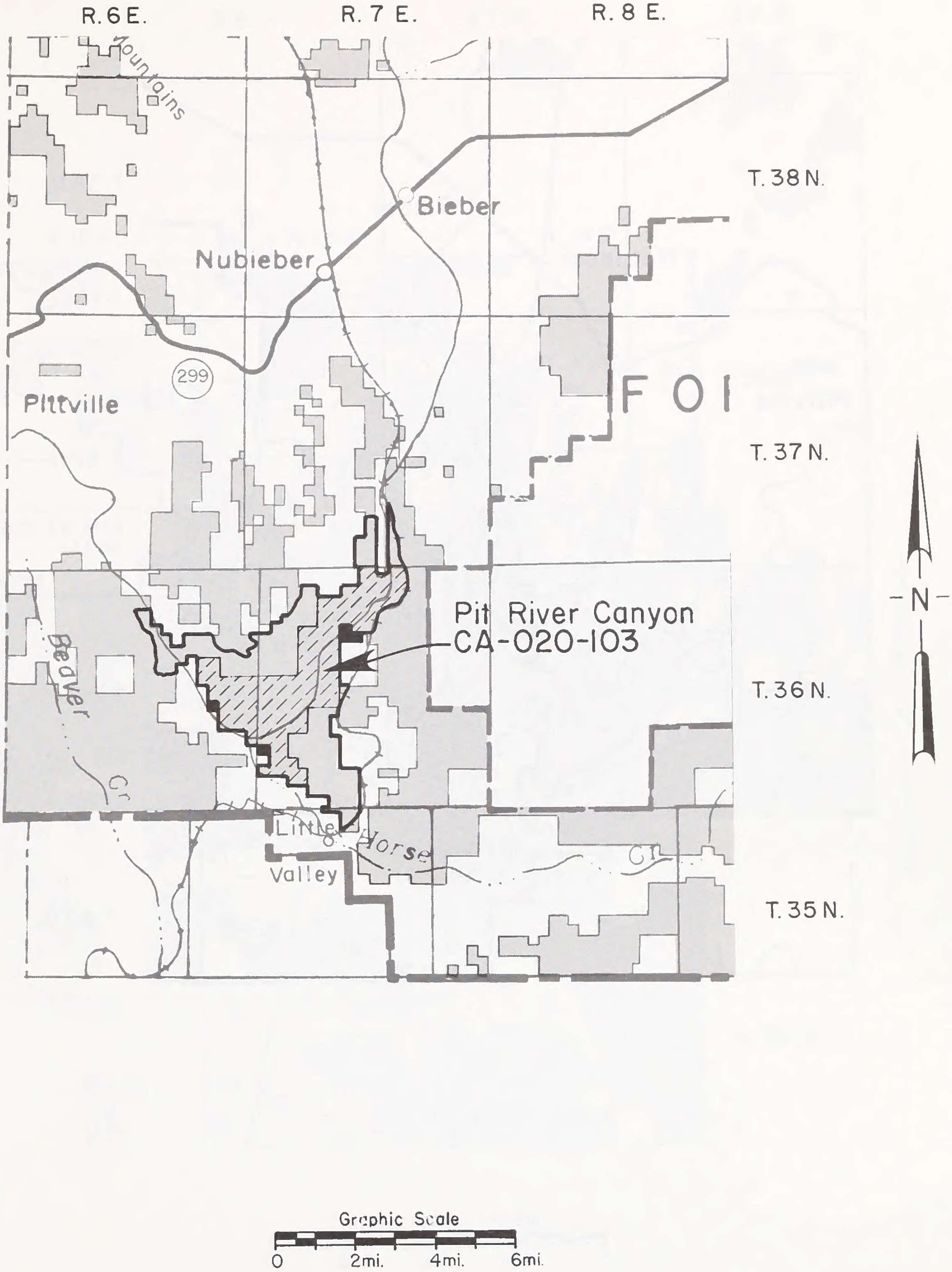
In addition, there are a large number of administratively endorsed wilderness study areas and other study areas that fall within a 100-mile radius of the EIS area. There are 26 administratively endorsed wilderness study areas totaling 713,341 acres. In addition, there are 32 BLM WSAs totaling 1,719,823 acres within a 100-mile radius of the EIS area.

Landform/Ecosystem Diversity

Two landform/ecosystems are represented in the EIS WSAs, as determined through classification utilizing the Bailey-Kuchler Ecosystems of the United States classification system. They are:

Sierran Forest Province - Western Ponderosa Forest
Sagebrush steppe

The wilderness planning criteria matrix indicates the number of existing and potential wilderness areas with representatives of each WSA's landform/ecosystem and the total acreage represented in the National Wilderness System.



Legend

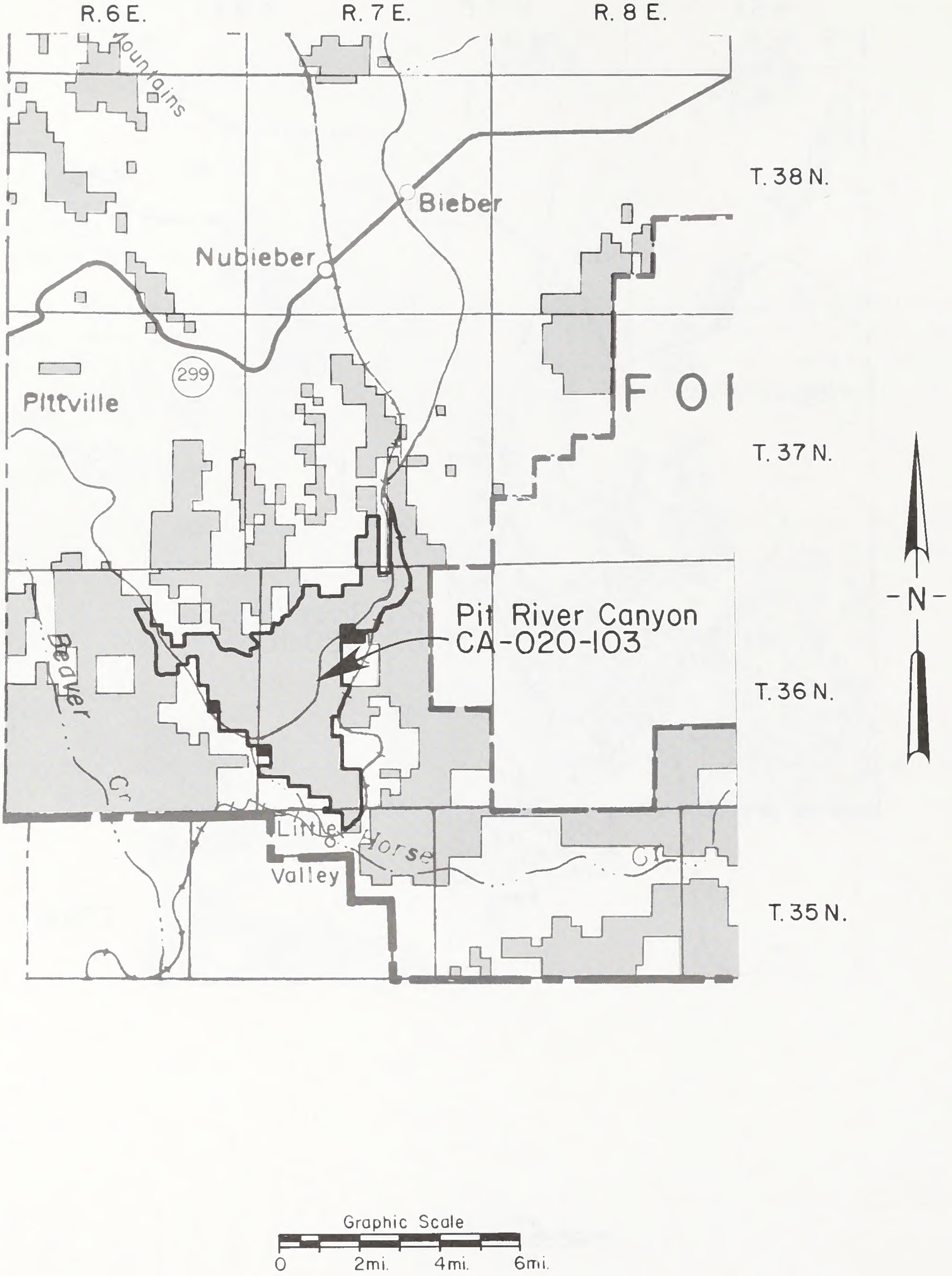
☐ **Wilderness Study Area**

▨ **Alternative II**

Map 3-5

ALTURAS PLANNING AREA

WILDERNESS STUDY AREAS



Legend

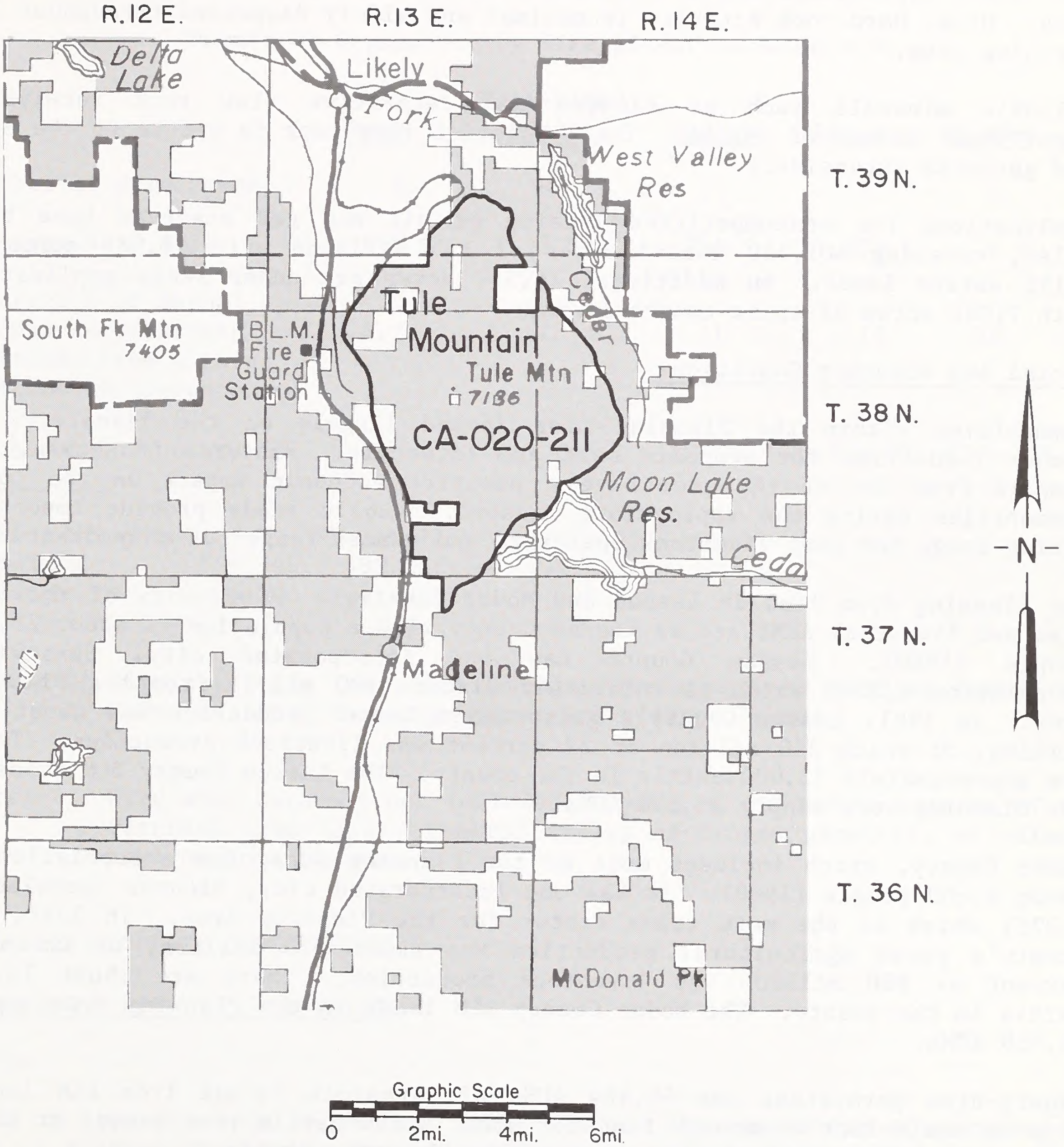
▭ **Wilderness Study Area**

▭ **Alternative III**

ALTURAS PLANNING AREA

WILDERNESS STUDY AREAS

Map 3-6



Legend

▭ **Wilderness Study Area**

ALTURAS PLANNING AREA

WILDERNESS STUDY AREAS

Map 3-7

Minerals

Public lands within the Alturas Planning Area contain mercury, gold, silver, zeolites, pumice, cinders, decorative stone, sand, and gravel. The Hayden Hill Mining District is the most important mining area in the region. Gold and silver exploration and development is currently active in this part of the area. Other hard rock activity is minimal and widely dispersed throughout the planning area.

Saleable minerals such as cinders and decorative flat rock receive a significant amount of demand. The decorative flat rock is unique to the area and gathered extensively.

Applications for noncompetitive leasing of oil and gas reserves have been filed, covering 101,330 leased acres of public lands with 41,987 acres of split estate lands. An additional 26,540 acres are under lease application with 7,046 acres of split estate lands.

Social and Economic Conditions

Communities within the Planning Area depend largely on the livestock and lumber industries for economic base and lifestyle. Hunters, fisherman, and campers from out of the area have a positive economic impact on the local communities during the appropriate seasons. Public lands provide important spring range for many livestock operators and summer range for many others.

The Planning Area lies in Lassen and Modoc Counties. A majority of the land base and livestock AUMs are in Lassen County with a population of about 21,700 people (1980). Lassen County has one incorporated city, Susanville (population 6,520) which is relatively distant (80 miles) from the Planning Area. In 1981, Lassen County's gross agricultural production was about $34 million, of which $10 million or 29 percent was livestock production. There are approximately 73,000 cattle in the county. The Lassen County BLM lands in the Planning Area supply 35,896 AUMs.

Modoc County, which includes most of the Planning Area, has a population of about 8,600 people (1980). It has one incorporated city, Alturas (population 3,025) which is the main trade center for the Planning Area. In 1981, the County's gross agricultural production was about $75 million, of which 27 percent or $20 million was livestock production. There are about 79,000 cattle in the county. The Modoc County BLM lands in the Planning Area supply 14,568 AUMs.

Ninety-nine permittees use 50,464 AUMs of livestock forage from BLM lands. This is equivelant to enough feed for about 4,200 cattle year round, or about 3 percent of the cattle in Lassen and Modoc Counties combined.

Most permittees operate cow-calf ranches, a type of range where the primary production is yearling calves, and a reliable source of feed is needed both year round and from year to year. Many of the permittees have more than one BLM allotment in the Planning Area.

Dependency is the percent of a permittee's total annual forage which is supplied by BLM allotments in the Planning Area. Table 3-2 shows data on dependency for the 99 permittees.

Table 3-2

Permittee Dependency by Size/Livestock Category*

	Sheep	Part-time Small	Medium	Large	Horses
Number of Permittees	2	39	35	21	2
Average Herd Size	4,450 S	37 C	254 C	1,073 C	6 H
Average % of Annual Forage Requirements Obtained from Alturas Allotments (Dependency)	4.2	17	11	13	38
Range of Dependency (%)	0.4 - 8	1 - 46	1 - 42	0.1 - 33	33 - 42

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* Part-time/Small = 0 - 99 cattle
Medium = 100 - 499 cattle
Large = 500 plus cattle

Sources: Alturas, Eagle Lake, and Surprise Resource Area permits; Lassen and Modoc National Forest permits; and private leases.

Note: Herd size data may not include all permits and leases outside of the Planning Area (i.e., Central Valley or Oregon permits), or animals kept on home ranches.

SPECIFIC RESOURCE DESCRIPTIONS

Management Area 1 - Tablelands

Range

MA 1 is approximately 88 percent public land. The vegetative composition of the 11 allotments in this area (3 of which are AMPs) is largely annual grass and low sage with smaller percentages of perennial grasses and juniper. Most of this area is grazed from the middle of April to the end of June. Eight permittees turn over 3,000 cows out on this flat to gently sloping plateau during this time, after which they occupy grazing permits on Forest Service lands. Water sources are generally well distributed throughout the MA.

Fish and Wildlife

The Likely tablelands is one of the most important and critical geographical units for wildlife in the Alturas Planning Area.

Deer winter range occurs along the eastern edge of the MA and is utilized by the Warner Mountain deer herd.

The tablelands is an antelope winter area supporting approximately one-third of the antelope wintering in California. This population has increased fourfold since 1960.

Thirteen sage grouse strutting grounds (five active) occur within this area. (More than any other area in the planning area.)

Native fisheries are present in three streams within this MA: Fitzhugh Creek, Pine Creek, and Plum Creek. All three are in stable or improving condition under present management.

Springs and meadows are major components of the MA. Many of the meadows are in good condition, probably due to the short early season grazing. Much of the riparian vegetation along Fitzhugh Creek has been severely overgrazed in the past. Within the fenced areas, the riparian habitat is improving rapidly.

Wetlands enhancement has occurred on the larger reservoirs such as Payne, Dannhauser, French, and Dobe Swale.

The area provides foraging and nesting lands for birds of prey such as prairie falcons, red-tail hawks, American kestrels, great horned owls, Swainson's hawks, and golden eagles.

Bitterbrush receives heavy use from wintering populations of antelope and deer. Use of bitterbrush by cattle is suspected to be slight due to the spring season of use.

Timber and Woodland

Timber: 57 acres of commercial forest land are within the timber base. Commercial species present are ponderosa pine, Jeffrey pine, and white fir.

84 acres of noncommercial (low site) forest land are in this MA. Commercial species present are ponderosa pine and Jeffrey pine. Noncommercial species are juniper and mountain mahogany.

Woodland: There are 1,297 acres of juniper woodland.

Cultural Resources

Three potential National Register districts and five potential National Register sites have been identified. The BLM plans to develop a Cultural Resource Management Plan (CRMP) on one of these potential National Register districts.

Soil and Water

Fitzhugh Creek has been identified as a water quality problem area due to past livestock grazing activities. Water in the stream exhibits high temperatures, reduced dissolved oxygen, and siltation. Fitzhugh Creek has a very high potential for an improved fisheries. Pine Creek has water quality suitable for existing uses. Roads crossing the Likely Table that channel water have been identified as contributing to a water quality problem.

Management Area 2 - Rocky Prairie

Range

Dense juniper stands with a remnant understory of perennial grasses dominate this MA of hilly terrain. Beginning in mid April, nine ranches graze 1,880 head of cows on the 12 allotments. Twelve to sixteen inches of rainfall support a largely bunchgrass forage base which allows a five month spring and summer season of use. In this MA of 60 percent public land, there are three AMPs, with potential for another.

Fish and Wildlife

MA 2 lies entirely within deer winter range as delineated by the California Department of Fish and Game. The primary browse species, bitterbrush, is a crucial element in this habitat and is in a highly decadent state under present management. Invasion of junipers is believed to be a primary cause for lack of browse vigor, due to shading and utilization of available water. At present levels of use, meadow condition is generally declining.

The Rocky Prairie area supports a substantial year-round antelope population as well as a portion of the Likely Table herd during summer.

One site of intensive sage grouse activity occurs within the MA.

One intermittent drainage and one perennial drainage occur across a total of five miles of public lands. Access to these areas for livestock is very limited due to rugged terrain. These areas contain native fisheries and good riparian vegetation. Larger impoundments support game fisheries which are maintained by the California Department of Fish and Game.

One golden eagle nest is located west of Clark's Reservoir within timber base lands, and one other known golden eagle nest occurs west of Dead Juniper Reservoir.

Timber and Woodland

Timber: 83 acres of commercial forest land are within the timber base. Commercial species include Jeffrey pine, incense cedar, and white fir.

374 acres of noncommercial (low site) forest land are in this MA. Commercial species present are Jeffrey pine and white fir. Noncommercial species are juniper and mountain mahogany.

Woodland: There are 20,585 acres of juniper woodland and 206 acres of mountain mahogany.

Cultural Resources

Two potential National Register districts and six potential National Register sites have been identified. The BLM plans to develop a CRMP on one of these potential National Register districts.

Threatened and Endangered Plants

Eriogonum prociduum, a species listed by both the Fish and Wildlife Service and the California Native Plant Society, occurs on both public and private lands in the Dorris and Westside Allotments.

Management Area 3 - Devils Garden

Range

Eighty percent of this MA is public land. Most of the eight allotments are adjacent to National Forest land and, in two cases, there is no fence separating the two agencies' lands. Nine ranchers are licensed to graze 360 cows on these lands. The vegetation is dominated by western juniper and perennial grasses, and receives about 14 inches of precipitation annually. All of the small allotments are custodially managed, one larger allotment has potential for a coordinated AMP.

Wild Horses and Burros

The entire 8,500 acres inside the Strip Allotment are accessible to wild horses and burros. Approximately 4,800 acres of Strip are used as part of their summer concentration area. The Devil's Garden Plateau Wild Horse Management Plan prepared jointly by BLM and USFS currently provides for the removal of excess animals. Target numbers have not yet been reached.

Fish and Wildlife

The MA forms the southern and eastern boundary for the Interstate deer herd wintering area. This is a transitory deer herd which summers in Oregon and winters in California.

Antelope kidding grounds (1,750 acres), as well as winter and summer range for antelope, occur in several parcels within this MA. The antelope are part of the Likely Tables herd.

One sage grouse strutting ground occurs on public lands.

Several active golden eagle and prairie falcon eyries exist on public and private lands within this MA.

Three perennial creeks, which contain populations of native fish, cross approximately 1-3/4 miles of public lands.

Several existing wetlands, such as Essex Reservoir and Lower Cummings, have potential for waterfowl enhancement projects.

Timber and Woodland

Timber: 22 acres of commercial forest land are within the timber base. Jeffrey pine and ponderosa pine are the commercial species present.

115 acres of noncommercial (low site) forest land are in this MA. Commercial species present are Jeffrey pine and ponderosa pine. Noncommercial species are juniper, mountain mahogany, and black oak.

Woodland: There are 6,540 acres of juniper woodland.

Management Area 4 - North Fork

Range

Sixteen permittees are licensed to graze 424 cows on the sixteen small allotments in this MA. Roughly 50 percent of the land in these woodland type allotments is private. Due to the small size of the allotments, custodial management practices dominate. Russell Slough is the existing AMP in this area, two other allotments have potential for more intensive management.

Fish and Wildlife

The public lands in this MA are all utilized as winter range by the Warner Mountain deer herd.

Several antelope kidding areas (approximately 2,500 acres) have been identified in this area, as well as an important antelope migration route for the Likely Tables herd.

One sage grouse strutting ground has been identified on BLM lands southeast of Goose Lake.

Numerous flowing springs in the MA are important resources for maintaining wildlife populations.

An active golden eagle eyrie exists in this MA.

Lassen Creek supports a viable trout fishery and crosses 3/8 mile of BLM land.

Bald eagle concentrations have been noted around the Willow Creek area. Adjacent public lands are used by bald eagles and roost sites may exist on public lands.

Timber and Woodland

Timber: No commercial forest land base exists in MA 4.

147 acres of noncommercial (low site) forest land are in MA 4. Jeffrey pine is the only commercial species present. Noncommercial species present are juniper and mountain mahogany.

Woodland: There are 3,048 acres of juniper woodland and 98 acres of mountain mahogany.

Cultural Resources

One potential Historic National Register site (Red Hawk Mine) has been identified. Because this site also poses safety hazards, it has been evaluated for possible mitigative measures.

Management Area 5 - Big Valley

Range

Virtually all of MA 5 is in the Big Valley area. All of the 33 allotments are custodially managed and only one or two have any potential for an AMP. Thirty-five ranchers are currently licensed to graze 1,270 cows and two horses on these highly scattered allotments. Most of the allotments have a spring season of use in order to best use annual grasses before the herds move onto U.S. Forest Service lands. Due to the competitive nature of the annual grasses within these parcels, vegetative conversion practices are limited.

Fish and Wildlife

The scattered public lands in MA 5 are important to support and maintain viable resident and migratory wildlife populations, providing some important habitat components in short supply on the private lands.

Three active sage grouse strutting grounds exist on public lands.

Active raptor eyries exist throughout the area, with the agricultural lands in the valley providing foraging areas, and the lowland hill areas surrounding the valley serving as roosting, nesting, and hunting areas. An active bald eagle winter roost site exists on public lands in this MA. Bald eagle nests occur on or adjacent to public lands. Significant numbers of bald eagles winter on private and public lands within the MA. Two perennial creeks (Ash Creek and Halls Creek) which cross public lands (one mile on BLM) contain native fish.

Numerous wetland areas occur and support high densities of wintering and nesting waterfowl.

Timber and Woodland

Timber: 400 acres of commercial forest land are within the timber base. Commercial species include Jeffrey pine, ponderosa pine, white fir, and incense cedar.

1,205 acres of noncommerical (low site) forest land are in MA 5. Commercial species present are ponderosa pine and Jeffrey pine. Noncommercial species are juniper, mountain mahogany, and black oak.

Woodland: There are 3,599 acres of juniper woodland.

Cultural Resources

One potential National Register district has been identified. A CRMP is planned for this district.

Minerals

One thousand acres of public lands are under oil and gas lease application by 5 applicants with 680 acres of split estate lands involved.

Management Area 6 - Widow Peak

Range

MA 6 has very limited grazing values. Only one allotment, Big Valley, covers the entire MA, and only 1,854 acres are in public ownership. Private ownership is unknown, but is approximately eight times larger. One permittee currently grazes 40 cows for two months on this allotment, but several other parties graze livestock on unfenced lands within the MA. Scattered stands of timber and large expansive brush fields make up the major portion of the vegetation, with forage provided by perennial grasses in the understory.

Fish and Wildlife

The Widow Mountain area includes deer summer range and a small section of deer winter range (Day Bench herd). Current management practices, which maintain a diversity of habitats with no large-scale monotypic conversions to a single type, are conducive to maintaining good deer habitat.

Timber and Woodland

Timber: 1,854 acres of commercial forest land are in the timber base. Of this total, 1,240 acres are in plantations. Commercial species include ponderosa pine, sugar pine, white fir, incense cedar, and Douglas-fir.

No noncommercial forest land is present in MA 6.

Woodland: No woodlands occur in sufficient quantities to be measured.

Management Area 7 - Little Valley

Range

MA 7 is comprised of 12 allotments, with 73 percent of the acreage public domain. Seven of these allotments have potential for AMPs and would benefit greatly from more intensive grazing systems and practices. Thirteen permittees are licensed for 3,108 cows and 6 horses primarily in the spring. The terrain in this MA varies from tablelands to hillsides to mountains and is covered with annual grasses, mixed perennial grasses and brush, and woodlands. Waterholes and springs are generally well distributed, but at least one large area is currently not used by livestock due to lack of water.

Fish and Wildlife

The Day Bench portion of the MA provides wintering habitat for the Day Bench deer herd, one of several herds composing the McCloud Flat Summer herd.

Portions of the Big Valley antelope herd utilize Dixie Valley and Beaver Creek as winter range. Year-round antelope populations utilize approximately 2,900 acres as kidding grounds.

There are approximately 15 miles of riparian habitat along three creeks.

A golden eagle nest site occurs in Muck Valley within timber base lands.

There is extensive development potential on existing reservoirs for fisheries introductions and waterfowl development projects.

Timber and Woodland

Timber: 1,075 acres of commercial forest land are in the timber base. Commercial species include Jeffrey pine, ponderosa pine, incense cedar, and white fir.

4,264 acres of noncommercial (low site) forest land are in the MA. Jeffery pine is the only commercial species present. Juniper, mountain mahogany, and black and Oregon oak are the noncommercial species present in this MA.

Woodland: There are 21,741 acres of juniper woodland, 99 acres of mountain mahogany, and an undetermined quantity of oak woodland.

Cultural Resources

Many potential National Register sites and districts have been identified within this culturally significant MA. At least three CRMPs will be completed on National Register districts in this area.

Soil and Water

Several meadows exist within the MA. Most are in stable condition; however, the main meadow along Sheep Creek has a deep gully which has drained the meadow. This situation is primarily a result of natural events, although headcutting on the lateral overland flow areas and in the upper meadow are a result of concentrated livestock activities. The upper meadow contains a number of springs which support rafted meadow vegetation.

Minerals

Two hundred acres of public land are under oil and gas lease application by 1 applicant. No split estate lands involved.

Management Area 8 - Pit River Canyon

Range

MA 8 includes all of one allotment and portions of four other allotments. Four of the five are currently licensed for livestock. The entire MA is publicly owned and encompasses all of the Pit River Wilderness Study Area. Wilderness designation could alter future livestock use, which is currently approximately 766 cows licensed to 2 permittees for two to three months. Extremely steep slopes in the canyon itself preclude any grazing there.

Fish and Wildlife

Mule deer from the Day Bench herd utilize all areas west of Second Butte as winter range. Browse conditioning at three locations indicated no significant problems in vigor, recruitment, or utilization.

The Big Valley antelope herd utilizes high elevation portions of the MA north of Pit River Canyon as summer range. Approximately five square miles of winter range also occur in this area.

MA 8 contains approximately 15 miles of stream, including Pit River and Horse Creek. Both of these streams support thriving native fisheries. Game fish include rainbow trout and largemouth bass in Horse Creek and channel catfish and largemouth bass in Pit River. Several water quality parameters such as alkalinity, pH, temperature, and phosphorous have negative effects on fisheries, but are problems originating from private lands and are not controllable by actions within the MA.

An inventory of riparian condition was conducted at seven locations along Pit River and at one location along Horse Creek. All ratings averaged in the low-fair range; however, due to natural barriers, only minimal portions of these drainages are affected by livestock or other uses.

Within Pit River Canyon, high cliff walls provide ideal habitat for nesting raptors. Golden eagles, prairie falcons, red-tailed hawks, and American kestrels nest in high densities throughout the canyon. Ospreys utilize both Horse Creek and Pit River for foraging activities, although no nest sites are known. Swainson's hawks utilize nest sites in Muck Valley.

Water is available for wildlife throughout the MA in Pit River and Horse Creek. In highland areas such as Muck Valley, water is limited to a few sources.

Timber and Woodland

Timber: No commercial forest land base exists within this MA.

Ten acres of noncommercial (low site) forest land are in the MA. Jeffrey pine is the only commercial species. Noncommercial species include juniper and mountain mahogany.

Woodland: There are 4,744 acres of juniper woodland.

Cultural Resources

The Pit River Canyon contains many National Register sites and qualifies as a National Register district. A CRMP will be completed on this area.

Wilderness

This MA contains the Pit River Canyon Wilderness Study Area (WSA) consisting of 11,575 acres of public land with no private inholdings. The area is currently managed under Interim Management Policy which allows existing uses with restrictions and allows new uses subject to nonimpairment criteria. The WSA contains:

- Approximately 11 miles of Pit River through deep canyon topography.
- Approximately 4 miles of Horse Creek and associated canyon topography.
- Native and sport fisheries through both perennial waters.
- Highly varied vegetation and topography including rolling annual grassland, talus slopes, and rimrock with ponderosa and Jeffrey pine, juniper, oak, and mahogany, and canyon riparian settings with dense streamside Carex, sweet clover, willow, oak, and ash.
- Few, isolated man-made intrusions.

Minerals

The Pit River WSA, between Nubieber and Little Valley, is underlain by Pliocene (2 million to 5 million years old) and Pleistocene (10,000 to 1 million years old) basalt and quaternary (1.5 million years to present) alluvium. There are no known occurrences of mineral resources in this WSA. A field examiniation of part of the WSA did not reveal any potential mineral resources. Inclusion of this WSA into the wilderness system is not expected to have any adverse effects on mineral resources.

Wilderness Summary Table

	Pit River Canyon
Size	11,575 acres
Naturalness	A few vehicle routes and livestock management facilities exist. Most of the unit is in a pristine state.
Solitude/ Primitive Recreation	Frequent and varied opportunities for both solitude and primitive recreation. Dramatic topographic variation from buttes to deep winding riparian canyons.
Special Features	High density raptor nesting habitat, unusual scenic quality, abundance and diversity of native fish, and National Register quality archaeological sites.
Multiple Resource Benefits	Provides additional protection to archaeological sites and insures integrity of raptor nesting and foraging habitat.
Natural Systems	No existing wilderness in this ecotype. Two administratively endorsed WSAs totaling 26,990 identified by USFS in Western Ponderosa Forest ecosystem. Canyon topography unique among these WSAs.
Opportunities Near Population Centers	Within one day's drive of 2 SMSAs. Will not significantly increase opportunities for these population centers due to proximity to other high quality wilderness areas.
Geographic Distribution of Wilderness Areas	Five units of the National Wilderness Preservation System within 100 mile radius.
Manageability	Most of the area is protected by natural barriers. Land status along portions of the WSA boundary and grazing developments in northern portion may reduce potential for management.

Management Area 9 - Madeline

Range

MA 9 is an area of large scattered tracts of public land surrounded by subdivided private land. The primary vegetation is silver sage and perennial grasses. Two permittees are licensed to graze just over 600 cows on the three allotments from June 1 until the end of September. Poor fence conditions and private dwellings within the allotments make this a difficult area to manage.

Fish and Wildlife

Antelope summer range encompasses the entire MA. Food requirements during the summer months are met to a large extent by grazing of alfalfa on private land. Antelope from the Lassen herd unit utilize the MA as summer range.

Waterfowl management areas have been developed by the California Department of Fish and Game on public land. Currently, waterfowl use of these sites is restricted to wet times of the year because no water right exists to provide wetland habitat during dry seasons.

Timber and Woodland

No timber or woodland exists in MA 9.

Threatened and Endangered Plants

The plant *Lomatium ravenii* is listed as "rare in California, common elsewhere" by the California Native Plant Society and is listed as endangered by the State of California. Status of the plant has changed considerably in the past few years. It has been found more abundant in California, Oregon, Idaho, and Nevada. It occurs on public land just north of Termo along Highway 395 and west of Juniper Ridge. These are extensions of the Ravendale-Madeline Plains populations. The plant is abundant within these populations and other populations within the district. There is no immediate threat or endangerment to this plant and it is not noticeably grazed by livestock.

Management Area 10 - Mountain

Range

MA 10 receives more than 16 inches of precipitation annually. This, along with a history of summer and fall use and rugged topography, accounts for the large amounts of good livestock forage. Generally well placed water facilities help distribute the 8,516 cows, 4,000 sheep, and 4 horses licensed to 21 permittees throughout the 205,000 acres of public land in this area. Prescribed burns and herbicide treatments have greatly increased available forage in the past, and potential exists to increase such practices in the future. Additional water facilities are needed. three AMPs exist now with potential for 7 more.

Fish and Wildlife

Deer winter, summer, and fawning habitat occur within the MA. Much of this area may be termed intermediate range as deer may utilize it to varying degrees year-long depending upon weather.

Antelope from the Lassen and Likely Tables herds summer and winter primarily in the far northern and extreme southwestern regions. Much of this habitat is intermittently wooded with dense juniper.

Sage grouse utilize at least seven known sites as strutting grounds.

Two perennial creeks containing native fisheries cross public lands within the MA. Native fisheries occur at three springs and in numerous reservoirs. Reservoirs which contain perennial water of sufficient depth and quality to potentially support viable game fisheries are numerous in this MA.

Scattered raptor nest sites for golden eagles, goshawks, and red-tailed hawks occur throughout the MA.

Timber and Woodland

Timber: 1,323 acres of commercial forest land are within the timber base. Commercial species are Jeffrey pine, ponderosa pine, white fir, and incense cedar.

2,701 acres of noncommercial (low site) forest land are in this MA. Commercial species present are Jeffrey pine and ponderosa pine. Noncommercial species include juniper, mountain mahogany, and aspen.

Woodland: There are 64,319 acres of juniper woodland, 6,259 acres of mountain mahogany, and 125 acres of aspen.

Cultural Resources

Many potential National Register sites have been identified and at least one CRMP will be completed in this MA.

Wilderness Summary Table

	Tule Mountain
Size	16,950 acres
Naturalness	Several vehicle routes and numerous stock ponds occur. Portions of the unit are in pristine condition.
Solitude/ Primitive Recreation	Large size, topography, and vegetation enhance opportunities for solitude. No uncommon natural features, diverse or challenging terrain to provide outstanding primitive recreation opportunities.
Special Features	No special ecological or geological features.
Multiple Resource Benefits	No significant benefits.
Natural Systems	One existing wilderness of 28,062 acres. Eight administratively endorsed WSAs of 341,000 acres, and 32 WSAs totaling 1,619,823 acres. Sagebrush steppe system/landform types which are represented in greater quantity and quality elsewhere in the region.
Opportunities Near Population Centers	Within one day's drive of 2 SMSAs. Will not significantly increase opportunities for these population centers due to proximity to other high quality wilderness areas.
Geographic Distribution of Wilderness Areas	Five units of the National Wilderness Preservation System within 100 mile radius.
Manageability	Vehicle routes penetrate the WSA from all boundaries. Rehabilitation and control of these access points and the number of grazing developments may conflict with management as wilderness.

Wilderness

This MA contains the Tule Mountain WSA consisting of 16,950 acres of public land which encompasses an additional 880 acres of nonpublic land in four scattered tracts. The area is currently managed under Interim Management Policy which allows existing uses with restrictions and allows new uses subject to nonimpairment criteria.

Other Resource Values

Topography	Entirely composed of peaks, slopes, and drainages associated with Tule Mountain. Elevation ranges from 4,900' to 7,098'. Five peaks occur along a north-south line ranging in height from 6,260' to 7,098'. The unit is diamong-shaped and roughtly ten miles long and six miles wide.
Vegetation	At the top of Tule Mountain are 105 acres of white fir and Jeffrey pine. Generally, slopes are open with predominantly big sage. Large isolated mahogany stands occur within the open big sage while most drainages and many slopes, particularly on the east side of the mountain, support dense juniper.
Range	Three allotments are included within the WSA. The Mitchell Hill Allotment includes less than 40 acres at the extreme southern end. The Warm Spring Allotment includes approximately 600 acres of private land and 550 acres of public land. The remainder of the WSA is included in the Tule Lake Allotment. Numerous range improvements (fences, reservoirs) are in place within the WSA.
Recreation	Very little recreational use occurs with the exception of deer hunting during the two week season. At that time, motorhomes and four-wheel-drive vehicles explore seemingly inaccessible areas using many vehicle ways which exist on the mountain.
Cultural Resources	Cultural resource sites are very low in density within the WSA. One site, a milling area of National Register quality, occurs along the southeast boundary.
Timber	105 acres of timber base lands which include white fir and Jeffrey pine, portions of which are in "overstocked" condition for commercial purposes. An additional 46 acres of a timber site require planting to return them to producing status.
Minerals	Mineral potential is low. Basalt found at the top of Tule Mountain could be used as a decorative stone called flat rock or lava moss rock. Access to the site is poor, and flat rock is available from other locations. The geothermal resources in the area could be used for direct heat, but there are no known geothermal resources hot enough for power generation here.

Minerals (continued)	2,000 acres have been leased for oil and gas. No known energy exploration has taken place and it is concluded that only speculative potential exists.
Wildlife	Mule deer are the only significant wildlife resource utilizing the WSA. Generally, poor habitat conditions with decadent browse, big sage, and dense young juniper limit diversity and utilization by many wildlife species.

Threatened and Endangered Plants

Three separate areas of sensitive plants occur in this MA. Termo/Lane Allotment and Coffin Allotment both contain a small population of *Lomatium ravenii* which is listed as endangered by the State of California.

A small population of *Antennaria flagellaris*, covering about 20 acres, occurs just south of the Hayden Hill townsite. This plant presently has no protection status, but is proposed for listing as threatened or endangered by the State of California and should be protected in the interim.

Ash Valley is the area of greatest concern and interest in the planning area. Three plants, *Astragalus tegetarioides*, *Eriogonum prociduum*, and *Ivesia paniculata*, occur there that require consideration and management under BLM policy on sensitive plants. Two other California Native Plant Society listed plants, *Dimeresia howellii* and *Draba douglasii*, also occur in the Ash Valley area.

Management Area 11 - East Warners

This MA is managed by the Surprise Resource Area. The decisions for this MA will be incorporated into the Cowhead/Massacre Management Framework Plan.

Range

MA 11 is an area of 14 scattered allotments in the Surprise Resource Area, totaling 5,480 acres of public land. Nine allotments are actively licensed for use by 257 cows and 12 horses to 8 permittees primarily in the spring. The gentler slopes are covered with sagebrush and grasses, while the steeper slopes have little vegetation. Due to the size landownership pattern and vegetative composition of these allotments, they are all custodially managed.

Fish and Wildlife

The entire MA is utilized by the Warner Mountain deer herd as winter range.

California quail, chukar, and blue grouse habitat occurs on the rocky slopes and in riparian habitats.

Two perennial creeks support cold water fisheries; however, verry little public land is contiguous to the streams.

Timber and Woodland

Timber: 222 acres of commercial forest land are within the timber base. Commercial species present are Jeffrey pine, ponderosa pine, and white fir.

253 acres of noncommercial (low site) forest land are in MA 11. Jeffrey pine is the only commercial species. Noncommercial species include juniper and mountain mahogany.

Woodland: No woodland occurs in sufficient quantities to be measured.

Threatened and Endangered Plants

Galium glabrescens ssp. _modocense_, listed as sensitive, occurs at four known locations on public land within the Milk Creek, Granger, and Cedar Creek Allotments.

Eriogonum prociduum, listed as sensitive, occurs west of Cedarville. The area is presently not in a grazing allotment.

Minerals

One noncompetitive geothermal lease covers 520 acres of public lands. One competitive lease covers 440 acres of public lands. This competitive lease is within the Lake City/Surprise Valley KGRA and the noncompetitive lease is adjacent to the KGRA. No split estate lands are involved.

Chapter 4

Environmental Consequences

Chapter 4

ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

This chapter provides the scientific and analytic basis for the selection of the Proposed Alternative. It discusses the significant impacts that are anticipated to result from implementation of the Proposed Alternative and each of the alternatives. Both the beneficial and adverse impacts affecting the environmental components, as discussed in Chapter 3, will be documented. This chapter also includes: mitigating measures (not included under Standard Operating Procedures of Chapter 2) needed to enhance beneficial impacts or lessen adverse impacts; unavoidable adverse impacts which cannot be mitigated; the relationship between short-term use and enhancement of long-term productivity; and irreversible impacts and irretrievable commitment of resources.

Knowledge of the area and professional judgment, based on observation and analysis of similar conditions and responses in similar areas, have been used to infer environmental impacts where data is limited.

The analysis of alternatives is organized by issue for each MA and is based on the following assumptions:

- Near-normal annual precipitation.
- Five year implementation (1984 through 1988).
- Funds and personnel available for implementation.
- Impacts will be monitored and implementation adjusted as necessary.
- Minor adjustments in management may occur.
- Short-term refers to five years, long-term refers to twenty years.
- Water will be available at reasonable depths, and water rights will be granted by the State Water Resources Control Board.
- Baseline data accurate.
- Allotment management plans (AMPs) written during 1983-87. Environmental assessments completed before starting any project.
- Additional forage allocations for livestock made only if additional forage is permanently available.
- Lands designated for potential disposal may be privately developed and not necessarily used for livestock grazing.

Table 4-1
Management Area 1
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
RANGE	- Vegetation treatments would significantly increase livestock forage quality on approximately 15,000 acres. - Increased forage and improved livestock distribution would generally improve ecological range condition. - Addition of Signal Butte Field to the N. Tableland AMP and extended seasons of use would allow more flexibility in livestock users operations.	- Same as Alternative I, except for slightly greater improvement in ecological range condition due to lower stocking levels.	- Gradual long term improvement in ecological range condition due to decreased stocking levels. Alternative IIIa - No Grazing - Slight, long term improvement in ecological range condition due to no grazing.	- Continued present management would cause ecological range condition to remain in a static to slightly improving state.
FISH AND WILDLIFE	- Wildlife habitat would show significant decline in ecological condition due to doubling the intensity of livestock use. - Antelope populations would continue to increase on a slowing trend. Deer use would decline significantly. - Competition for forage among deer, antelope, and livestock would intensify with heavier stocking rate.	- Exclusion of livestock from additional 4 miles of Fitzhugh Creek would greatly improve fisheries and riparian values.	- All wildlife habitats would show significant improvement due to lowered livestock stocking levels, and light utilization. - Exclusion of livestock from additional 4 miles of Fitzhugh Creek would greatly improve fisheries and riparian values.	- Deer habitat would continue slight decline. - Antelope habitat would remain static with rising populations. - Fisheries and waterfowl habitat would remain stable.

Table 4-1 (continued)
Management Area 1
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
FISH AND WILDLIFE (continued)	- Longer seasons of livestock concentration on wetland, meadow, and riparian habitats would greatly increase stream sediments, reduce wetland vegetation, and degrade riparian habitats resulting in lowered fisheries and waterfowl production. - Residual forage after the grazing season would be greatly reduced resulting in less forage for wintering deer/antelope populations.		Alternative IIIa - No Grazing - All fish and wildlife habitats would show significant increases in food, cover, residual forage, and water quality. Trends for all species would be static or improving.	
TIMBER	- Same as present management, except the unmanaged forest stand (7 acres) would significantly increase in growth and vigor and would be less susceptible to attack by insects and disease.	- Same as present management, except modified harvest techniques or levels on 18 acres could moderately reduce the productivity of the stand.	- Same as present management, except modified harvest techniques or levels on 18 acres could moderately reduce the productivity of the stand. Alternative IIIa - No Grazing - Same as present management.	- The managed forest stands (57 acres) would increase in growth and vigor and would be less susceptible to attack by insects and disease. - The unmanaged forest stand (7 acres) would be less productive than the managed stands and would have more loss to insects and disease.

Table 4-1 (continued)
Management Area 1
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
WATERSHED	- As a result of minimal effort in Fitzhugh Creek, physical channel structures would not be maintained and water quality would not improve beyond its present condition. - Roadways on the Tablelands would exhibit the same conditions as Present Management.	- As a result of continued efforts in Fitzhugh Creek, water quality would become optimum. Meadow and riparian values would be maximized. - Due to special timber harvest practices along Pine Creek, no water quality degradation would occur during timber harvest. - Improved alignment and design of problem road areas on the Tablelands would reduce maintenance costs and improve access.	- Same as Alternative II, except that restriction of OHVs during wet soil periods would further reduce maintenance costs and allow access sooner in the spring. Alternative IIIa - No Grazing - Same as Alternative III, except for area wide improvement of soil and riparian areas which are not protected under Alternative III. Would not significantly change the beneficial uses of water in area over Alternative III.	- Management along Fitzhugh Creek would significantly increase aquatic and riparian habitat and improve water quality. No change in water quality along Pine Creek. - Present location and design of Tablelands road network would continue to limit the access to this area, as well as increase maintenance costs.
CULTURAL	- Increased livestock use and certain vegetation treatments would significantly degrade cultural values, particularly around spring sources. - Continued OHV use would slightly degrade cultural resource values.	- Increased livestock use and certain vegetation treatments would significantly degrade cultural values, particularly around spring sources. - Continued OHV use would slightly degrade cultural values. Significant reduction of degradation in National Register Sites.	- Decreased livestock use would moderately lessen the degradation of cultural values, particularly around spring sources. - Continued OHV use would slightly degrade cultural values. Significant reduction of degradation in National Register Sites. Alternative IIIa - No Grazing - No impacts from livestock.	- Continued livestock trampling and OHV use would continue to slightly damage cultural values, particularly around springs.

Table 4-1 (continued)
Management Area 1
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
LANDS	- No significant impacts.	- No significant impacts.	- No significant impacts. Alternative IIIa - No Grazing - No significant impacts.	- No significant impacts.

Table 4-1 (continued)
Management Area 2
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
RANGE	- Vegetation treatments would significantly increase livestock forage on approximately 6,000 acres. - Vegetation treatments, increased forage, AMP development, and improved livestock distribution would generally improve ecological range condition. - Addition of 5,113 AUMs by AMP development and extended seasons of use would allow more flexibility in livestock users operation. - Juniper thinning on 2,960 acres would slightly improve forage value for livestock.	- Same as Alternative I, except for slightly greater improvement in ecological range condition due to lower stocking levels.	- Gradual long term improvement in ecological range condition due to decreased stocking levels. Alternative IIIa - No Grazing - Slightly greater improvement in ecological range condition due to no grazing.	- Continued present management would cause ecological range condition to remain in a static to slightly improving state.
FISH AND WILDLIFE	- Wildlife habitat would show significant decline in ecological condition due to doubling the intensity of livestock use. - Antelope populations would continue to increase on a slowing trend. Deer use would decline significantly. - Competition for forage among deer, antelope, and livestock would intensify with heavier stocking rate.	- No significant impacts.	- All wildlife habitats would show significant improvement due to lowered livestock stocking levels and light utilization. Alternative IIIa - No Grazing - All fisheries and wildlife habitats would show significant increases in food, cover, residual forage, and water quality. Trends for all species would be static or improving.	- Deer habitat would continue slight decline. - Antelope habitat would remain static with rising populations. - Fisheries and waterfowl habitat would remain stable.

Table 4-1 (continued)
Management Area 2
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
FISH AND WILDLIFE (continued)	- Longer seasons of livestock concentration on wetlands and meadow habitats would reduce wetland vegetation and degrade riparian habitats resulting in slightly lowered waterfowl production. - Residual forage after the grazing season would be greatly reduced resulting in less forage for wintering deer/antelope populations.			
FUELWOOD	- Moderate decrease in future yield of fuelwood within MA, but within treatment areas there would be a significant decrease in future yield.	- Moderate decrease in future yield of fuelwood within MA, but within treatment areas there would be a significant decrease in future yield.	- No significant impacts. Alternative IIIa - No Grazing - No significant impacts.	- No significant impacts.
TIMBER	- Same as present management.	- Same as present management.	- Same as present management. Alternative IIIa - No Grazing - Same as present management.	- The managed forest stands would increase in growth and vigor and would be less susceptible to attack by insects and disease.

Table 4-1 (continued)
Management Area 2
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
CULTURAL RESOURCES	- Increased livestock use and certain vegetation treatments would significantly impact cultural resources, particularly around springs and meadows. - Disposal of isolated tracts could impact cultural resources by loss of Federal protection.	- Increased livestock use and certain vegetation treatments would significantly degrade cultural resources.	- Same as present management, except slightly reduced degradation to cultural resources by reduced livestock numbers. Alternative IIIa - No Grazing - No degradation to cultural resources would occur from livestock by the no grazing alternative.	- Continued livestock trampling and OHV use would continue to slightly damage cultural values, particularly around springs.
T & E PLANTS	- Increased livestock use would slightly disturb Eriogonum prociduum by trampling and soil compaction. - Increased human and vehicle activity during fuelwood cutting would slightly disturb Eriogonum prociduum.	- No significant impacts.	- No significant impacts. Alternative IIIa - No Grazing - No significant impacts.	- No significant impacts. - No significant impacts.
LANDS	- No significant impacts.	- No significant impacts.	- No significant impacts. Alternative IIIa - No Grazing - No significant impacts.	

Table 4-1 (continued)
Management Area 3
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
RANGE	- Vegetation treatments and fuelwood harvest would slightly increase livestock forage. - Improved livestock distribution through stockwater developments, extended seasons of use, and allowing moderate utilization would allow more flexibility in livestock user operations.	- Same as Alternative I, except lower AUM levels and existing season of use would provide slightly less flexibility in livestock user operations.	- Reduction of livestock levels would cause gradual long term improvement in ecological range condition. Alternative IIIa - No Grazing - Slight improvement in ecological range condition due to no grazing.	- Under present management, ecological range condition would remain static - good and fair, and utilization would remain light. Fuelwood harvest would slightly increase forage production.
FISH AND WILDLIFE	- Extended seasons of use and increased stocking levels for livestock would increase livestock/deer competition and decrease browse availability for wildlife. - Declining ecological condition on spring, meadow, and riparian habitats would accelerate due to increased intensity of livestock use.	- Browse availability on deer winter range would show moderate increases due to vegetative treatments and existing levels or moderate increase of livestock use. - Ecological condition of spring and meadow habitats would greatly improve from poor/fair to fair/good condition at protected sites.	- Same as present management, except that protection of spring and meadow habitats would provide moderate additional green forage and improved water quality at protected sites.	- Overall trends in wildlife habitats and populations would remain static or decline slightly. - Spring, meadow, and riparian habitats would continue moderate decline in ecological condition due to continued livestock pressure on these areas.

Table 4-1 (continued)
Management Area 3
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
FISH AND WILDLIFE (continued)	- Disposal of 2,600 acres of scattered parcels includes approximately 2,000 acres of deer winter range of which approximately 750 acres have potential for significant private development. One Golden Eagle nest territory and one inactive sage grouse strutting ground may be adversely affected, if private development occurs.	- Water quality and fisheries at Noble-Fish Spring would improve significantly due to exclusion of livestock. - Disposal of 2,160 acres of scattered parcels includes approximately 1,500 acres of deer winter range of which approximately 500 acres have potential for significant private development. - Potential impacts to Golden Eagles and sage grouse as in Alternative I.	Alternative IIIa - No Grazing - Overall, all terrestrial wildlife species would show population increases in response to significant increases in residual forage, improved meadow, spring, and riparian condition.	- High levels of residual green forage are available for wildlife due to relatively low level of grazing intensity.
CULTURAL	Same as present management, except: - Land disposaland subsequent development within the Stull Allotment could significantly affect cultural resources. - Increased livestock use would slightly degrade cultural values. - Livestock use around springs would significantly degrade cultural values.	Same as present management, except: - Increased livestock use would slightly degrade cultural values. - Restricted OHV use around National Register Sites would eliminate cultural disturbance. - Land disposal and subsequent development within the Stull Allotment could significantly affect cultural resources.	- OHV impacts to cultural sites will be eliminated as OHV will be restricted to existing roads. - Slight decrease in damage to cultural sites by reduced cattle numbers. Alternative IIIa - No Grazing - No degradation to cultural values from livestock due to the no grazing alternative.	- Continued livestock trampling and OHV use would damage cultural resource values. Livestock degradation to sites would occur in more of an intense manner around springs (Rattlesnake and Noble Fish).

Table 4-1 (continued)
Management Area 3
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
FUELWOOD	- Slight decrease in future yield of fuelwood within MA, but within treatment areas there would be a significant decrease in future yield. - Disposal of public lands would significantly decrease availability of fuelwood from public land within the MA, however, within the PA there would be an insignificant decrease.	- Disposal of public lands would significantly decrease availability of fuelwood from public land within the MA, however, within the PA there would be an insignificant decrease.	- No significant impacts. Alternative IIIa - No Grazing - No significant impacts.	- No significant impacts.
TIMBER	- Same as present management, except disposal of public lands containing commercial timber base land would cause an insignificant loss of long-term sustained timber revenues to the government.	- Same as present management, except disposal of public lands containing commercial timber base land would cause an insignificant loss of long-term sustained timber revenues to the government.	- Same as present management. Alternative IIIa - No Grazing - Same as present management.	- The managed forest stands would increase in growth and vigor and would be less susceptible to attack by insects and disease.
LANDS	- No significant impacts.	- No significant impacts.	- No significant impacts. Alternative IIIa - No Grazing - No significant impacts.	- No significant impacts.

Table 4-1 (continued)
Management Area 4
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
RANGE	- With AMP development, improved livestock distribution, and extended season of use, ecological range would remain static. - Fuelwood harvest and juniper thinnings would slightly increase livestock forage. - Incorporation of Capik into Russell Slough AMP and development of Crowder AMP would provide more flexibility to users operations.	Same as Alternative I, except: - Slight improvement in ecological range condition due to lower stocking levels.	Same as present management, except: - AMP development in Crowder Allotment and adding Capik to Russell Slough AMP would provide more flexibility to users operation. Alternative IIIa - No Grazing - Elimination of livestock would cause slight gradual long term improvement in ecological range condition.	- Under present management ecological range condition would remain static-good and fair, and utilization would remain light. - Fuelwood harvest would slightly increase forage production.
FISH AND WILDLIFE	- Extended seasons of use and increased stocking levels for livestock would increase livestock/deer competition and decrease browse availability for wildlife. - Declining ecological condition on spring, meadow, and riparian habitats would accelerate due to increased intensity of livestock use.	Same as Alternative I, except: - Protection of spring and meadow habitats would significantly improve ecological condition and water quality at these sites.	- Same as present management, except that protection of spring and meadow habitats would provide moderate additional green forage and improved water quality at protected sites.	- Overall trends in wildlife habitats and populations would remain static or decline slightly.

Table 4-1 (continued)
Management Area 4
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
FISH AND WILDLIFE (continued)	- 4,000 acres of scattered parcels identified for disposal are all within deer winter range and antelope summer range. 3,320 acres are identified as antelope winter range. Approximately 2,840 acres have potential for significant private development which would adversely impact antelope and deer habitat as well as one Golden Eagle nest. One key 40 acre parcel of an antelope migration route would be disposed of causing potential disruption of antelope movement.	- 3,500 acres of scattered parcels identified for disposal are all within deer winter range. Approximately 3,000 acres are identified as antelope winter range. Approximately 2,680 acres have potential for significant private development which would adversely impact antelope and deer habitat. One key 40 acre parcel of an antelope migration route would be disposed of causing potential disruption of antelope movement.	Alternative IIIa - No Grazing - Overall, all terrestrial wildlife species would show population increases in response to significant increases in residual forage, improved meadow, spring, and riparian condition.	- Spring, meadow, and riparian habitats would continue moderate decline in ecological condition due to continued livestock pressure on these areas. - Browse condition in deer winter range would remain in decadent condition. - High levels of residual green forage are available for wildlife due to relatively low level of grazing intensity.
FUELWOOD	- Disposal of public lands would significantly decrease availability of fuelwood from public land within the MA, however, within the PA there would be an insignificant decrease.	- Disposal of public lands would significantly decrease availability of fuelwood from public land within the MA, however, within the PA there would be an insignificant decrease.	- Disposal of public lands would moderately decrease availability of fuelwood from public land within the MA, however, within the PA there would be an insignificant decrease. Alternative IIIa - No Grazing - No significant impacts.	- No significant impacts

Table 4-1 (continued)
Management Area 4
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
LANDS	- No significant impacts.	- No significant impacts.	- No significant impacts. Alternative IIIa - No Grazing - No significant impacts.	- No significant impacts.

Table 4-1 (continued)
Management Area 5
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
RANGE	- Vegetative projects and water development in Chase Valley would provide more flexibility in users operations. - Ecological range condition would remain static in fair and poor condition.	- Same as Alternative I.	Same as Alternative I. Alternative IIIa - No Grazing - Elimination of livestock would cause slight, gradual, long term improvement in ecological range condition.	- Under present management, ecological range condition would remain static-fair and poor.
FISH AND WILDLIFE	- A high percentage of the 2,880 acres of scattered parcels identified for disposal are in deer & antelope winter range. 1 sage grouse strutting ground and small acreages of antelope kidding grounds are also included. Up to 1,500 acres have potential for significant private development causing moderate impacts to deer and antelope habitats. Must of this habitat is already affected by adjacent private land development. - Three sage grouse strutting grounds would be slightly affected by increased cattle use.	- Same as Alternative I.	- No significant impacts. Alternative IIIa - No Grazing - Overall, all terrestrial wildlife species would show slight population increases in response to significant increases in residual forage, improved meadow, spring, and riparian condition.	- No significant impacts.

Table 4-1 (continued)
Management Area 5
Impacts

Issue	Alternative 1 Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
FUELWOOD	- No significant impacts.	- No significant impacts.	- No significant impacts. Alternative IIIa - No Grazing - No significant impacts.	- No significant impacts.
TIMBER	- Same as present management, except disposal of public lands containing commercial timber base land would cause an insignificant loss of long-term sustained timber revenues to the government.	- Same as Alternative 1.	- Same as Alternative 1. Alternative IIIa - No Grazing - Same as present management.	- The managed forest stands would increase in growth and vigor and would be less susceptible to attack by insects and disease.
CULTURAL	- Increased livestock use and certain vegetation treatments would significantly degrade cultural values, particularly around Service, Wildjack and Richmond Springs. - Land disposal could significantly affect protection of cultural resource values. - Continued OHV would slightly degrade cultural resource values.	- Increased livestock use would slightly degrade unidentified cultural values; particularly sites around spring sources such as Service, Wildjack, and Richmond Springs that are left unprotected. - Land disposal could significantly affect protection of cultural resource values.	- Decreased livestock use would slightly lessen the degradation to cultural values. Alternative IIIa - No Grazing - No impacts from livestock.	- Continued livestock trampling and OHV use would continue to slightly damage cultural values, particularly around springs.

Table 4-1 (continued)
Management Area 5
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
LANDS	- No significant impacts.	- No significant impacts.	- No significant impacts. Alternative IIIa - No Grazing - No significant impacts.	- No significant impacts.

Table 4-1 (continued)
Management Area 6
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
RANGE	- Same as present management.	- Same as present management.	- Same as present management. Alternative IIIa - No Grazing - Slight detrimental impact through loss of grazing permit.	- Under present management ecological range condition would remain static. - Timber harvest would slightly increase forage production.
TIMBER	- Same as present management.	- Same as present management, except moderate loss to government of long term sustained timber revenues due to transfer of 240 acres from public ownership. Alternative IIIa - No Grazing - No significant impacts.	- Same as present management.	- The managed forest stands would increase in growth and vigor and would be less susceptible to attack by insects and disease.
WILDLIFE	- No significant impact.	- No significant impacts.	- No significant impacts. Alternative IIIa - No Grazing - No significant impact.	- No significant impact.
LANDS	- No significant impacts.	- No significant impacts.	- No significant impacts. Alternative IIIa - No Grazing - No significant impacts.	- No significant impacts.

Table 4-1 (continued)
Management Area 7
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
RANGE	- Vegetative treatments would significantly increase livestock forage on 5,500 acres. - Increased forage, AMP development, and improved livestock distribution would generally improve ecological range condition. - Addition of 2,006 AUMs by AMP development and extended season of use would allow more flexibility in livestock users operations. - Fuelwood harvest would slightly improve forage value for livestock.	- Same as Alternative I, except fencing of Sheep Valley watershed would slightly reduce one livestock operation (loss of 30 AUMs).	- Gradual long term improvement in ecological range condition due to decreased stocking levels. - 198 AUMs would be excluded from the ACEC portion of Dixie Valley Allotment causing slightly greater loss to one livestock operator. Alternative IIIa - No Grazing - Slightly greater improvement in ecological range condition due to no grazing.	- Continued present management would cause livestock forage quantities to increase on 2,600 acres. Ecological range condition would remain static in all other areas.
FISH AND WILDLIFE	- Wildlife habitat would show slight decline in ecological condition overall due to authorization of additional livestock numbers and seasons of use.	- Meadow and riparian habitats would significantly improve due to exclusion of livestock in Sheep Valley, upper Horse Creek, and Russell Dairy Creek.	Same as Alternative II, except: - Exclusion of livestock from all of ACEC area would provide greater improvement in meadow and watershed values in Sheep Valley. Residual forage for wildlife would increase due to lower intensity of livestock use.	- Deer winter range will continue slight degradation due to competition for available forage with livestock. - Meadow and riparian values would continue to slightly degrade due to livestock concentration in these areas.

Table 4-1 (continued)
Management Area 7
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
FISH AND WILDLIFE (continued)	- Concentration of additional livestock in meadow and riparian habitats will accelerate degradation in these areas and increase sedimentation in Horse and Russell Dairy Creeks.		Alternative IIIa - No Grazing - All fisheries and wildlife habitats would show significant increases in food, cover, residual forage, and water quality. Trends for all species would be static or improving.	
FUELWOOD	- No significant impacts.	- Removal of fuelwood harvest from Beaver Creek National Register District and Sheep Valley would slightly decrease availability of fuelwood from public lands within the MA, however, within the PA there would be an insignificant decrease.	- Removal of fuelwood harvest from Beaver Creek National Register District would slightly decrease availability within the MA, but within the PA there would be an insignificant decrease. - Removal of fuelwood harvest from Sheep Valley ACEC would moderately decrease availability within both the MA and PA. Alternative IIIa - No Grazing - No significant impacts.	- No significant impacts.
TIMBER	- Same as present management.	- Same as present management.	- Same as present management. Alternative IIIa - No Grazing - Same as present management.	- The managed forest stands would increase in growth and vigor and would be less susceptible to attack by insects and disease.

Table 4-1 (continued)
Management Area 7
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
CULTURAL	- Increased livestock use and certain vegetation treatments would significantly degrade cultural values, particularly around spring systems and riparian areas. - Continual OHV use would slightly degrade cultural values.	- Increased livestock use and certain vegetation treatments would significantly degrade cultural values, particularly around spring systems and riparian areas. - Slightly reduced degradation to cultural sites by restricting vehicles around National Register Sites and Districts.	- Decreased livestock use would moderately decrease damage to cultural values, particularly around spring and riparian areas. - Slightly reduced degradation to cultural sites by restricting vehicles around National Register Sites and Districts. Alternative IIIa - No Grazing - No impacts from livestock.	- Continued livestock trampling and OHV use would slightly degrade cultural values, particularly around spring sources.
WATERSHED	- Increased livestock grazing would significantly decrease the value of meadow areas through increased soil compaction and lowering of the watertable as a result of increased gullying.	- Exclusion of cattle and vehicular use from 350 acres of meadow would maintain existing values and slightly improve condition of riparian vegetation and reduce trampling of springheads. - Reduction of livestock numbers and use of grazing systems in AMP allotments would slightly improve meadows outside the 350-acre exclusion. - Protection of 65 acres of riparian woodland from fuelwood harvest would maintain streambank stability and shade cover along Sheep Creek.	- Same as Alternative II, except that there would be a significant increase in the meadow values (vegetation and soil) outside the 350-acre exclusion. Alternative IIIa - No Grazing - Same as Alternative II, except for area wide improvement of soil and riparian areas which are not protected under Alternative III. Would not significantly change the beneficial use of the water in area over Alternative III.	- The lack of special management in riparian and meadow areas would provide no protection or consideration of riparian and meadow values. - Increased gullying would continue to occur. Other meadow areas would continue to show degradation during low rainfall years or when livestock use is concentrated.

Table 4-1 (continued)
Management Area 8
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
RANGE	- Vegetation treatments would significantly increase livestock forage on 1,900 acres. - Increased forage, AMP development, and improved livestock distribution would generally improve ecological range condition. - AMP development and extended season of use would allow more flexibility in livestock users operation. - Construction of drift fence would prevent cattle entrapment in Pit River Canyon.	- Same as Alternative I, except for slightly greater improvement in ecological range condition due to lower stocking levels.	- Gradual long term improvement in ecological range condition due to decreased stocking levels. - Wilderness designation could encumber livestock management (e.g., restricting vehicular access and vegetation conversion of 1,900 acres). Alternative IIIa - No Grazing - Same as Alternative III except for slightly greater improvement in ecological range condition due to no grazing.	- Range condition would remain static-fair and poor condition. - Continued cattle entrapment within Pit River Canyon. - Limited restoration of suspended nonuse preference caused by limited forage production potential.
FISH AND WILDLIFE	- Generally, wildlife habitat would show moderate improvement with addition of water sources and vegetation treatments to provide palatable spring green forage in place of medusahead. - Exclusion of cattle would significantly improve riparian habitat along Pit River.	- Same as Alternative I except slightly greater increase in forage due to lower livestock levels. - Buffer zones around nest trees would reduce disturbance factors affecting nesting success for eagles, falcons, and Swainson's hawks. Raptor production would increase in population trend due to improved nesting success.	- Livestock reductions and resulting habitat improvement would provide for general long-term increases in deer/antelope populations due to significant increases in available forage. - Cattle exclusion from Ruhnert Spring and Pit River Canyon would significantly increase meadow and riparian condition.	- Wildlife habitat condition would continue slight decline over long term. - Livestock use along Pit River Canyon would continue to slightly degrade riparian habitat. - Continued unrestricted fuelwood cutting could remove raptor nest trees, thereby reducing nesting success.

Table 4-1 (continued)
Management Area 8
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
FISH AND WILDLIFE (continued)	- Deer and antelope numbers may show slight upward trend as habitat carrying capacity improved. - Increased livestock use would cause slight degradation in meadow condition around Ruhnert Spring. - Harvest of oak would slightly decrease availability of mast and cover on deer winter range.	- Exclusion of cattle from Ruhnert Spring would significantly improve meadow condition and provide high quality water source for deer, antelope, and small mammals.	- Prohibiting vehicular access and fuelwood cutting from raptor buffer zones would reduce disturbance factors affecting nesting success. - General trend for raptors would be upward in long term. Alternative IIIa - No Grazing - Same as Alternative III except cattle/wildlife competition for browse and green forage would be eliminated.	
WILDERNESS	- Wilderness values within the entire 11,575 acre WSA would not be protected under the Wilderness Act. - Vegetative treatments, vehicular traffic, and fuelwood harvest would moderately degrade wilderness values (naturalness and opportunities for solitude) within the 8,530 acres outside the Pit River Canyon. Wilderness values within the 3,200 acre canyon would remain essentially intact.	- Same as Alternative I except all wilderness values would be protected within the 5,800 acre recommended wilderness area. - Remaining 5,775 acres would be moderately degraded as in Alternative I. - Acquisition of 320 acres of private land would significantly improve manageability and insure preservation of natural condition along watercourses of Pit River and Horse Creek.	- All wilderness values within entire WSA would be fully protected. - Acquisition of 1,290 acres of private land would significantly improve manageability and insure preservation of entire watercourses of Pit River and Horse Creek. Alternative IIIa - No Grazing - Same as Alternative III except eliminating livestock related impacts would enhance the natural condition of WSA.	- Wilderness values within the WSA would not be protected under the Wilderness Act.

Table 4-1 (continued)
Management Area 8
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
WILDERNESS MANAGEABILITY	- No significant impacts.	- Management is enhanced because of use of natural barriers and elimination of odd configuration and vehicle ways.	- Difficult to effectively manage due to irregular configuration and presence of existing vehicular ways around the primeter.	- No significant impacts.
FUELWOOD	- Permit the harvest of oak, thus increasing the total amount of fuelwood for public use. - Vegetation treatments would significantly decrease future yield of fuelwood within treatment areas.	- Restricting fuelwood cutting within Pit River Canyon would slightly decrease fuelwood availability to public. - Vegetation treatments would significantly decrease future yield of fuelwood within treatment areas.	- Prohibiting fuelwood cutting would significantly decrease fuelwood availability to public.	- No significant impacts.
RECREATION	- No significant impacts.	- No significant impacts.	- Wilderness designation would eliminate vehicular dependent recreation activities on approximately 8 miles of vehicular routes.	- No significant impact.
CULTURAL	- Increased livestock use and certain vegetation treatments would significantly degrade cultural values, particularly around Ruhnert Springs.	- Continued livestock use and certain vegetation treatments would slightly degrade cultural values.	- Reduced livestock use and elimination of vehicular traffic and fuelwood cutting would slightly decrease degradation of cultural values. Alternative IIIa - No Grazing - Elimination of livestock would decrease impacts to cultural values.	- Continued livestock trampling and OHV use would continue to slightly damage cultural values, particularly around springs.

Table 4-1 (continued)
Management Area 8
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
MINERALS	- No significant impacts.	- No new claims or leases after December 31, 1983 in designated wilderness areas. Not a major impact as no known potential for mineral development. - No mining claims or oil & gas leases in the area (5,800 acres).	- No new claims or leases after December 31, 1982 in designated wilderness areas. Not a major impact as no known potential for mineral development. - No mining claims or oil & gas leases in the area (11,565 acres). Alternative IIIa - No Grazing - No significant impacts.	- No significant impacts.

Table 4-1 (continued)
Management Area 9
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
RANGE	- Vegetation treatment on 640 acres would greatly improve forage value and increase stocking level in lower Highway Allotment. Stockwater development would improve distribution. - Flexible season of use would enhance permittees' operation. - Disposal of 8,000 acres in N. Termo, Lane, and the NE portion of Fillman-Diablo Allotments would greatly facilitate management by eliminating the need for approximately 35 miles of fence and several stock water ponds.	- Same as Alternative I.	- Same as Alternative I. Alternative IIIa - No Grazing - Slightly greater improvement in ecological range condition due to no grazing.	- Continued present management would result in ecological range condition remaining static (fair, good, excellent). - Management would continue to be difficult due to scattered land ownership.
FISH AND WILDLIFE	- Disposal of 8,000 acres of public land with probable conversion to agricultural uses would alter antelope use from resting & kidding habitat to primarily feeding habitat. Significant increases in antelope use would result. - Flood irrigation systems for agricultural development would provide significant increases in waterfowl habitat.	- Same as Alternative I.	- Same as Alternative I.	- No significant impacts.

Table 4-1 (continued)
Management Area 9
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
T & E PLANTS	- Loss of sensitive plant population through potential exchange of public lands.	- Loss of sensitive plant population through potential exchange of public lands.	- No significant impacts.	- No significant impacts.
LANDS	- No significant impacts.	- No significant impacts.	- No significant impacts. Alternative IIIa - No Grazing - No significant impacts.	- No significant impacts.

Table 4-1 (continued)
Management Area 10
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
RANGE	- Vegetation treatments would significantly increase livestock forage on approximately 26,000 acres. - AMP developments, increased livestock forage, and improved livestock distribution would improve overall ecological range condition. - Juniper thinning and harvest on 1,323 acres would slightly improve forage value for livestock. - Increased seasons of use of 60 days would improve flexibility of users operations.	Same as Alternative I, except: - For slightly greater improvement in ecological range condition due to lower stocking levels. - Livestock forage values would be increased significantly on 4,000 acres by wildlife improvements.	- A long term improvement in ecological range condition would result from lower stocking levels. - Loss of 1,500 acres of vegetation treatments within the WSA. - Closure of approximately 11 miles of ways within the WSA would complicate access to range improvements and salting. Alternative IIIa - No Grazing - Slightly greater improvement in ecological range condition due to no grazing.	- Continued present management would cause ecological range condition to improve slightly over a long period of time.
FISH AND WILDLIFE	- Wildlife habitats would show significant decline in ecological condition due to 60 percent increase in authorized livestock use. - Longer season and increased intensity of livestock concentration on wetlands, meadow, and riparian habitats would cause heavy reductions in wetland and riparian vegetation resulting in decreased waterfowl and fisheries production.	- Wildlife habitats would show moderate improvement in ecological condition due to wildlife project implementation. - Protected meadow habitats would show significant response and improving ecological condition.	- Same as Alternative II, except one-third reduction in authorized livestock utilization would provide additional moderate improvement in all habitats.	- Meadow and riparian habitats would continue slight downward trend in ecological condition due to livestock concentration in these areas. - Available forage for deer would continue to decrease as browse condition and residual forage continue to decline under existing livestock pressure.

Table 4-1 (continued)
Management Area 10
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
FISH AND WILDLIFE (continued)	- Competition for forage between deer and livestock would intensify resulting in significant reduction in available forage for deer and other wildlife. - Residual forage after the grazing season would be greatly reduced resulting in overall habitat degradation for all species. - Disposal of 6,600 acres of isolated parcels would cause slight degradation to antelope kidding grounds and deer winter range on parcels where development occurs.	- Deer/livestock competition would remain at current levels, but vegetative manipulation projects would provide moderate increases in available browse resulting in overall habitat improvement. - Disposal of 6,600 acres of isolated parcels would cause slight degradation to antelope kidding grounds and deer winter range on parcels where development occurs.	Alternative IIIa - No Grazing - All fish and wildlife habitats would show significant increases in food, cover, residual forage, and water quality. Trends for all species would be static or improving.	
FUELWOOD	- Moderate decrease in future yield of fuelwood within MA and PA, but within treatment areas there would be a significant decrease in future yield.	- Moderate decrease in future yield of fuelwood within MA and PA, but within treatment areas there would be a significant decrease in future yield.	- Slight decrease in future yield of fuelwood within MA and PA, but within treatment areas there would be a significant decrease in future yield. Alternative IIIa - No Grazing - No significant impacts.	- No significant impacts.

Table 4-1 (continued)
Management Area 10
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
TIMBER	- Same as present management, except the disposal of public lands containing commercial timber base land would cause an insignificant loss of long-term sustained timber revenues to the government.	- Same as present management, except the disposal of public lands containing commercial timber base land would cause an insignificant loss of long-term sustained timber revenues to the government.	- Same as present management, except the unmanaged stands within the Tule Mountain Wilderness would significantly decline in growth and vigor and would be significantly more susceptible to attack by insects and disease. - Loss of 151 acres of commercial forest lands within the WSA. Alternative IIIa - No Grazing - Same as present management.	- The managed forest stands would increase in growth and vigor and would be less susceptible to attack by insects and disease.
WILDERNESS	- Wilderness values within the 16,950 acre WSA would not be protected under the Wilderness Act. - Vegetative treatments would cause slight short-term degradation of wilderness values (naturalness). - Continued vehicular traffic and fuelwood harvest would cause slight degradation of wilderness values (naturalness, solitude) as new vehicle routes are created and established ones enlarged.	- Same as Alternative I.	- All wilderness values within the WSA would be fully protected under the Wilderness Act. Alternative IIIa - No Grazing - Wilderness values would be moderately enhanced as vegetation recovers from livestock grazing impacts.	- Wilderness values would continue to degrade slightly from vehicular traffic and fuelwood harvest.

Table 4-1 (continued)
Management Area 10
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
WILDERNESS MANAGEABILITY	- No significant impacts.	- No significant impacts.	- Difficult to manage due to inholdings, cherry stem roads which penetrate to center of area and numerous ways into range improvements. Alternative IIIa - No Grazing - No significant impacts.	- No significant impacts.
CULTURAL	- Increased livestock use and certain vegetation treatments would significantly degrade cultural values, particularly around springs. - Continued OHV would slightly degrade cultural resource values.	- Increased livestock use and certain vegetation treatments would significantly degrade cultural values, particularly around springs. - Slightly reduced degradation to cultural values by restricting vehicles around National Register Sites.	- Decreased livestock use would significantly lessen the degradation to cultural values, particularly around springs. - Slightly reduced degradation to cultural values by restricting vehicles around National Register Sites. Alternative IIIa - No Grazing - No impacts from livestock.	- Continued livestock trampling and OHV use would continue to slightly degrade cultural resources.
RECREATION	- No significant impacts.	- No significant impacts.	- Some hunting opportunities would be lost due to closure of approximately 11 miles of vehicular routes within WSA area. Alternative IIIa - No Grazing - No significant impacts.	- No significant impacts.

Table 4-1 (continued)
Management Area 10
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
MINERALS	- No significant impacts.	- No significant impacts.	- No new claims or leases after December 31, 1982 in designated wilderness areas. There are no known mining claims within the WSA area. 2,000 acres of the WSA are leased for oil & gas potential for oil & gas and geothermal is speculative. Alternative IIIa - No Grazing - No significant impacts.	- The area is available for mineral exploration and leasing.
T & E PLANTS	- Increased livestock use would slightly disturb sensitive plant species by trampling and soil compaction. - Increased fuelwood harvest and human and vehicular traffic would slightly disturb sensitive plants.	- No significant impacts.	- No significant impacts. Alternative IIIa - No Grazing - No significant impacts.	- Slight disturbance to sensitive plants from livestock trampling and vehicular traffic.
LANDS	- No significant impacts.	- No significant impacts.	- No significant impacts. Alternative IIIa - No Grazing - No significant impacts.	- No significant impacts.

Table 4-1 (continued)
Management Area 11
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
RANGE	- Development of 2 AMPs would afford more flexibility and increase available forage to the affected permittees.	- Gradual improvement in ecological range condition over time due to no livestock grazing.	- Development and implementation of AMPs on all allotments will greatly increase flexibility in use on 14 allotments. Alternative IIIa - No Grazing - Gradual improvement in ecological range condition over time due to no livestock grazing.	- Continued present management of 421 authorized AUMs would result in a slight improvement in ecological range condition over a long period of time.
TIMBER	- Same as present management, except loss to government of long term sustained timber revenues due to transfer of 40 acres from public ownership.	- Same as present management, except loss to government of long term sustained timber revenues due to transfer of 118 acres from public ownership.	- Managed stands would increase in growth and vigor and be less susceptible to attack by insects and disease. Alternative IIIa - No Grazing - Same as present management.	- Managed stands would increase in growth and vigor and be less susceptible to attack by insects and disease.
CULTURAL	- Same as present management.	- Continued livestock trampling would continue to slightly degrade cultural values. - No significant disturbance from OHV use.	- Continue livestock trampling would continue to slightly degrade cultural values. - No significant disturbance from OHV use.	- Continued livestock trampling and OHV use would continue to slightly damage cultural values, particularly around perennial water sources.

Table 4-1 (continued)
Management Area 11
Impacts

Issue	Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
T & E PLANTS	- No significant impacts.	- Loss of sensitive plant populations through potential disposal of public lands.	- No significant impacts. Alternative IIIa - No Grazing - No significant impacts.	- No significant impacts.

Table 4-2

Socioeconomic Impacts Area Wide

Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
- The maximum potential increase in livestock forage use would be the equivalent of enough forage to feed approximately 2,500 cattle year round. That would be an increase of 2 percent to Modoc and Lassen Counties' present cattle numbers. Approximately 50 of the livestock permittees would be benefitted substantially. - Disposal of approximately 26,000 acres of public land would probably result in an insignificant increase in agricultural production and residential/recreational home development. - Three permittees could be substantially adversely affected if they were to lose the use of their allotments through land disposal. An additional 32 permittees could be slightly adversely affected through land disposal.	- Little change for most operators unless additional forage became available through range improvement projects and monitoring. The effect of the additional forage would be similar to Alternative I, though not as great. - Disposal of approximately 30,000 acres of public land would probably result in an insignificant increase in agricultural production & residential/recreational home development. - Four livestock permittees could be significantly adversely affected if they were to lose the use of their allotments through land disposal. Thirty-nine permittees could be slightly adversely affected by land disposal.	- The decrease in livestock forage would be the equivalent of enough forage to feed 1,350 cattle year round. This would be about a 1 percent decrease in Modoc and Lassen Counties' cattle numbers. - Disposal of approximately 9,033 acres would probably result in an insignificant increase in agricultural production and residential/recreational home development. - One livestock permittee could be significantly adversely affected by loss of forage through land disposal if they were to lose the use of their allotments. Fifteen other permittees could also be slightly adversely affected by land disposal. Alternative IIIa - No Grazing - The decrease of livestock forage would be equivalent to the loss of enough forage to feed 4,100 cattle year round. A reduction of about 3 percent of Modoc and Lassen Counties' cattle numbers.	- Socioeconomic conditions would remain essentially the same.

Table 4-2 (continued)

Socioeconomic Impacts Area Wide

Alternative I Maximized Production	Alternative II Balanced	Alternative III Maximized Protection	Alternative IV Continue Present Management
		- In addition, there would be loss of use of adjacent private lands where livestock access is across public lands. The cost of fencing the public lands to prevent livestock access has not been estimated but is expected to be sustantial and would add significantly to the operation costs of the adjacent private landowners who graze livestock. - Loss of forage would cause significant adverse impacts to 32 permittees. Most of the other permittees would be slightly adversely affected. - Land disposal impacts would be the same as in Alternative III.	

MITIGATION MEASURES

The following mitigation measures are intended to help reduce or eliminate adverse impacts identified in this chapter. These include specific measures in addition to those already described under Standard Operating Procedures, pages 2-40--2-42. All mitigation measures pertaining to the selected alternatives will be considered.

1. Increases in authorized livestock use for allotments or pastures not affected by vegetation conversion projects will be made initially in increments on a temporary nonrenewable basis, in order to assess the impacts of increased livestock use. After 5 years of monitoring data has been collected and analyzed, a portion or all of the Suspended Nonuse AUMs may be reinstated. In areas where vegetation conversion is successful, an increase in livestock AUMs may occur after 1 to 3 years (Alternatives I and II).

   This mitigation measure will prevent active preference from being increased to a level that would harm other resources before the impacts are known.

2. Livestock turnout areas will be rotated from year to year in AMP Allotments, or where turnout areas stay the same, the period of use will not exceed 3 weeks.

   This mitigation measure will prevent persistently heavy livestock concentration in specific areas, thus enhancing the distribution and utilization of preferred forbs and browse species.

3. Salt or mineral blocks and spring developments will be located and designed to encourage livestock use away from spring meadows (Alternatives I, II, and III). Where monitoring shows that livestock grazing continues to degrade meadow values, fencing and/or rehabilitation will be considered.

   Spring meadows provide important wildlife habitat and contain watershed values easily disturbed by excessive concentrations of livestock. This mitigation measure will minimize livestock trampling and vegetation destruction within these spring meadows and ensure further protection, if needed.

4. For all proposed seedings (Alternative I and II), suitable perennial forbs, grasses, and browse will be included in the seed mixture and about 20 percent of the total area treated will be left in native vegetation to provide interspersion within the seeded area.

   These measures will reduce the loss of pronghorn spring forage caused by seedings, maintain habitat diversity, and prevent the displacement of wildlife.

5. Exclosures to livestock will be actively maintained by BLM and will be constructed with a gate.

   Good maintenance will ensure that a good fence is there to keep cattle, including calves, out and the gate can be used to release animals that may become trapped inside.

6. Vegetation treatment areas by prescribed burn or aerial spray application will contain leave areas where necessary to protect bitterbrush, mahogany, or other browse and cover stands.

   These species are vital to wintering deer populations and are very difficult to reestablish after treatment.

7. The Best Management Practices for protection of water quality will include site-specific mitigation measures and management prescriptions (Alternatives I, II, and III).

8. Use of check dams or other erosion control structures will be used to decrease accelerated erosion resulting from livestock grazing or other management activities (Alternative II and III).

9. Potential disposal of public lands in Management Area 11 which support populations of sensitive plants *Eriogonum prociduum* and *Galium glabrescens* ssp. *modocense* will be further considered, analyzing the impacts disposal would have on these and any other discovered sensitive plant species.

UNAVOIDABLE ADVERSE IMPACTS

Alternative I - Maximized Production

- 73,290 acres of soil and vegetation disturbed by land treatments.
- Decline in wildlife habitat condition and populations.
- Continued deterioration of riparian and meadow habitat.
- Moderate impacts on wilderness quality.
- Loss of timber revenues from removal of commercial forest land from timber base.
- Significant on-site decrease of fuelwood availability on a sustained yield basis within conversion project sites.
- Accelerated degradation of cultural resources.

Alternative II - Balanced

- 73,290 acres of soil and vegetation disturbed by land treatments.
- Continued suppression of riparian and meadow habitat where not fenced.
- Minor but allowable impacts on wilderness quality.

- Continued moderate degradation of cultural resources.
- Slight decrease of fuelwood availability from restricted cutting on National Register Sites and Districts, T&E plant populations, and Sheep Valley.
- Significant reduction in productivity on 7 acres of commercial forest lands.
- Moderate reduction in productivity on 18 acres of commercial forest lands.
- Loss of timber revenues from removal of commercial forest lands from the timber base.

Alternative III - Maximized Protection

- Continued slight suppression of riparian and meadow habitat where not fenced.
- Continued but decreased degradation of cultural resources.
- Significant reduction in productivity on 7 acres of commercial forest lands.
- Moderate reduction in productivity on 18 acres of commercial forest lands.
- Loss of timber revenues from removal of commercial forest lands from timber base.
- Significant reduction in productivity of 151 acres of commercial forest in Tule Mountain Wilderness Study Area.
- Slight decrease of fuelwood availability from prohibiting cutting from all National Register Sites and Districts, T&E plant populations, and designated WSAs, and Sheep Valley ACEC.

Alternative IIIa - No Grazing

- Loss of $3% of cattle numbers from Lassen and Modoc Counties.
- 99 ranches dependent on BLM grazing lands within the Planning Area (from 0.3% to 44% for livestock forage) would lose a viable part of their operation; some would not survive as economic entities.

Alternative IV - Continue Present Management

- 36,000 acres of soil and vegetation disturbed by land treatment.
- Slow decline in wildlife habitat condition and populations.
- Continued deterioration of riparian and meadow habitat.
- Continued water quality degradation.
- Minor but allowable impacts on wilderness quality.
- Continued degradation of cultural resources.
- Slight decrease of fuelwood availability from restricted cutting on National Register Sites and Districts, and T&E plant populations.
- Significant reduction in productivity on 7 acres of commercial forest lands.
- Loss of timber revenues from removal of commercial forest lands from timber base.

SHORT-TERM USE VERSUS LONG-TERM PRODUCTIVITY

This section identifies the trade-offs between short-term use and long-term productivity of the resources involved in the four alternatives. For this analysis, "short-term" refers to the period of project implementation within about 5 years, and "long-term" refers to the period 20 years or beyond in which the proposals' adverse or beneficial impacts would still occur.

For Alternatives I, II, and IV, in the short-term there would be about 73,290; 73,290; and 36,000 acres respectively, disturbed by land treatments. In the mid term, range condition and productivity would increase significantly. In the long-term, without continued treatment, the same trends toward climax would continue.

In the short term, Alternative III would allow improvement in deer, pronghorn, and sage grouse habitat condition and hunting opportunities. In the long-term, the habitat condition and hunting opportunities would decline as plant communities moved toward climax.

In the short-term, big game forage and habitat would increase due to vegetation manipulation projects in Alternatives II and III. In the long-term, after vegetation has reestablished, the same trends toward climax condition would continue. Vegetative manipulation would result in short-term reduction of seral stage and corresponding short-term and mid term increases in wildlife habitat.

Alternatives I and II identify large acreages for disposal. Significant loss of habitat for big game in winter range would result from these disposals.

Degradation of cultural resources would continue under all alternatives in the short-term. In the long-term, there would be more stabilization of cultural resource sites due to decreased erosion and management facilities.

Intensive forest management practices, including timber sales and forest development projects, would consume forest resources but would lead to healthier, more vigorous, and increased production of timber stands (all alternatives).

Harvest of juniper above the level of sustained yield would have a negative affect upon the future supply of juniper products. This is expected to occur on juniper cutting areas designated for range and wildlife habitat improvement.

Possible trail construction and use of heavy equipment to repair gullies in Sheep Valley would cause short-term impacts on soil condition. Long-term result is a significant increase in meadow values (Alternatives II and III).

Realignment of roads (Alternative III) on the tablelands would take additional land out of productivity due to increased road surface. Partial recovery of abandoned alignment would occur in the long-term.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

This section identifies the extent to which the four alternatives would irreversibly limit potential uses of the land and resources. Irreversible and irretrievable commitments of resources occur when a wide range of future options are foreclosed.

Woodland to rangeland conversion projects would commit juniper resources for the life of the projects (Alternatives I, II, III and IV).

The harvest of woodland products and associated revenues from woodlands would be lost within designated WSAs (Alternatives II and III).

The timber harvest potential and associated revenues from those commercial forest lands within the designated WSA would be irreversibly and irretrievably committed (Alternative III).

All negative impacts on cultural resources would result in irretrievable losses of information (all alternatives).

Disposal of public lands would result in an irreversible and irretrievable loss of administrative control and public use for all resource values except mineral values on those parcels.

CHAPTER 5

CONSULTATION & COORDINATION

Chapter 5

CONSULTATION AND COORDINATION WITH OTHERS

PUBLIC INVOLVEMENT

Consultation and coordination with the public and public agencies was a planned and integral part of the development of the management alternatives analyzed in this Draft EIS.

Following is a summary of the consultation, coordination, and public participation in the EIS process:

- Notice of Intent to prepare the Alturas Resource Area Management Plan/EIS published in Federal Register on February 1, 1980 and filed with California State Clearinghouse.
- Preplanning analysis completed. Available for public review in April, 1980.
- Public meetings conducted on March 18 and 19, 1980 in Susanville and Alturas to identify significant issues to be addressed in the planning process.
- Issues consolidated and distributed for public comment on January 6, 1981.
- Newsletter outlining planning process published and distributed to public in August, 1981.
- Newsletter identifying planning criteria published and distributed to public in September, 1981.

Oral as well as written comments received throughout the planning process were used in the final development of alternatives analyzed in this Draft EIS. These comments are on file and available for public review in the BLM Susanville District's Alturas Resource Area Office.

After public review, the comments received on this Draft EIS will be addressed in the preparation of the Final EIS.

The District Manager then has the responsibility of preparing the land use plan and proposed grazing decisions from the Final EIS and additional comments received.

The land use plan may be protested by any person who participated in the planning process and may be adversely affected by the proposed decisions. The proposed grazing decisions will be subject to public review and consultation before final decisions are made and implementation is begun.

LIST OF AGENCIES AND ORGANIZATIONS FROM WHOM COMMENTS WILL BE REQUESTED

In addition to interested individuals, comments on the Draft EIS will be requested from the following agencies and interest groups:

CONGRESSIONAL

California

Norman Shumway
Alan Cranston
Pete Wilson
Ray Johnson
Stan Statham

GOVERNMENT

Federal

U.S. Forest Service - Lassen and Modoc National Forests
Soil Conservation Service
Fish and Wildlife Service (Tule Lake Basin)
Advisory Council on Historic Preservation
Heritage Conservation and Recreation Service
Modoc Refuge
North Cal-Neva RCD

State

California Department of Fish and Game
California State Historic Preservation Officer
California Division of Forestry
Lahontan and Sacramento Regional Water Quality Control Boards
Native American Heritage Commission
California Department of Water Resources

County

Lassen County Supervisors
Lassen County Planning Commission
Lassen County Extension Agent
Modoc County Supervisors
Modoc County Planning Commission
Modoc County Extension Agent
Modoc County Road Department
Lassen County Agricultural Commission
Lassen County Road Department
Modoc County Agricultural Commission

INTERESTED GROUPS/ORGANIZATIONS

Environmental

NRDC
Sierra Club - Reno
Wilderness Society - Reno
Northern California Wilderness Coalition
California Native Plant Society

Historical, Archaeology

Native American Heritage Advisory Committee (Susanville)
Lassen County Historical Society
Modoc County Heritage Society

Livestock

Modoc County Cattlemen's Association
Lassen County Cattlemen's Association
District Grazing Advisory Board
Alturas Resource Area Operators
Modoc Grazing Advisory Board

Mineral

Lakeview Gem and Mineral Society
Lassen County Mineral and Gem Society
Modoc Gem and Mineral Society

Recreational

Hot Wheels 4X4 Club
Glass Mountain Four-Wheelers
Ed Crawford, NOLOC
Lassen Motorcycle Club

Forestry

Paul Bunyan Lumber Company
Collins Pine Company
Roseburg Lumber Company
Main Industries Inc.
Coin Lumber Company
Publishers Forest Products
Pasternak Logging
Sierra Pacific Industries
Surprise Valley Lumber Company
Goose Lake Timber Company
R. H. & L. Loveness Logging

University

Jim Linebaugh, University of Nevada
Jim Clawson, University of California
Dick Ekhart, University of Nevada
Wayne Burkhardt, University of Nevada

Wild Horses and Burros

Wild Horse Organized Assistance
International Society for the Protection of Wild Horses and Burros

Wildlife

Lassen County Fish and Game and Recreation Commission
Lassen Organized Sportsmen
Eagle Lake Audubon
Lassen Fin and Antler Club
Modoc Rod and Gun Club

Other

Chambers of Commerce
Calandor Pine Corporation
Citizens Utilities
Edgerton Lumber
Farm Bureau
Garden Club
Modoc County Sportsmen
Pit River Home and Agriculture Association
Pit River Tribal Council
Pacific Power and Light Company
Public Lands Council
Rod and Gun Club
Rotary International
Surprise Valley Electric

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Glossary

GLOSSARY

ABBREVIATIONS

AMP	allotment management plan
AMS	Analysis of Management Situation
AUM	animal unit month
BLM	Bureau of Land Management
CFR	Code of Federal Regulations
EA	environmental assessment
EIS	environmental impact statement
FLPMA	Federal Land Policy and Management Act
HMP	habitat management plan
IMP	interim management policy
MA	management area
NRHP	National Register of Historic Places
OHV	off-highway vehicle
PA	planning area
RMP	Resource Management Plan
SMSA	Standard Metropolitan Statistical Area
SNU	suspended nonuse (AUMs)
VRM	visual resource management
WSA	wilderness study area

TERMS

ACTIVE PREFERENCE: The current available forage authorized for use on individual grazing permits. Same as Active AUMs. Active preference plus any suspended preference equal total preference.

ACTUAL USE: The amount of livestock use actually grazed.

ALLOTMENT: An area of land where one or more operators graze their livestock. It contains public lands and can include parcels of private or state owned lands. The number of livestock and period of use are stipulated for each allotment. An allotment may consist of several pastures or be only one pasture.

ALLOTMENT MANAGEMENT PLAN (AMP): A livestock grazing management plan dealing with a specific unit of rangeland, and based on multiple-use resource management objectives. The AMP considers livestock grazing in relation to other uses of the range and in relation to renewable resources - watershed, vegetation, and wildlife. An AMP establishes the seasons of use, the number of livestock to be permitted on the range, the range improvements needed, and the grazing system.

ALLOWABLE CUT: The amount of timber that may be harvested annually or periodically from a specified area over a stated period of time in accordance with the objectives of management on a sustained-yield basis.

ANIMAL UNIT: The equivalent of one mature (1,000 lb.) cow or 5 sheep based upon average daily forage consumption of 26 lbs. dry matter per day.

ANIMAL UNIT MONTH (AUM): (1) The amount of feed or forage required by an animal unit for one month (i.e., 800 lbs./month). (2) Tenure of one animal-unit for a period of one month.

ANNUALS: Plants produced from seed which complete their life cycle in one growing season.

ARCHAEOLOGICAL RESOURCES: Sites, areas, structures, objects, or other evidence of prehistoric or historic human activities.

BASE PROPERTY: The ranch or privately owned property that acts as base for the livestock operation providing forage or hay for livestock during the period they are off public rangeland. Grazing preference is tied directly to ownership or control of base property.

BEST MANAGEMENT PRACTICE (BMP): A practice or combination of practices determined by the State and/or area-wide planning agencies, after problem assessment, examination of alternative practices, and appropriate public participation, to be the most effective, practicable means of preventing or reducing pollution generated by non-point sources to a level compatible with water quality standards.

BOARD FOOT (B.F.): A unit of solid wood, one foot square and one inch thick.

BROWSE: The tender shoots, twigs, and leaves of trees and shrubs often used as food by deer, antelope, livestock, and other animals; or to feed or eat on browse.

CARRYING CAPACITY: The maximum stocking rate possible without damaging vegetation or related resources. Carrying capacity may vary from year to year on the same area due to fluctuating forage production caused primarily by differing amounts of precipitation.

CHERRY STEM: Fingerlike intrusions into a WSA which are not themselves part of the WSA (for example, an access road).

CLASS II CULTURAL INVENTORY: A sample oriented field inventory of cultural resources.

CLIMAX: The highest ecological development of a plant community capable of perpetuation under the prevailing climate and soil conditions.

COMMERCIAL FOREST LAND: Forest land that is now producing or is capable of producing at least 20 cubic feet per acre per year of commerical coniferous tree species.

COMMERCIAL THINNING: Removal of merchantable surplus trees.

CRITICAL WILDLIFE HABITAT: That portion of the living area of a wildlife species that is essential to the survival and perpetuation of the species either as individuals or as a population.

CULTURAL RESOURCES: Those fragile and nonrenewable remains of human activity, occupation, or endeavor, which are reflected in district sites, structures, buildings, objects, artifacts, ruins, works of art, architecture or natural features.

CUMULATIVE IMPACT (WILDERNESS): The aggregate impact of existing and proposed activities. Individual intrusions when considered by themselves may not impair wilderness suitability; however, when combined with other existing and proposed substantially unnoticeable impacts, the total effect may be sufficient to impair an area's suitability for preservation as wilderness.

DEPENDENCY: The amount of forage provided by public lands, expressed as a percentage of a herd's total forage requirements for one complete year. The forage requirement is based on the ranch's total herd.

ENDANGERED SPECIES: Any species which is in danger of extinction throughout all or a significant portion of its range.

EPHEMERAL STREAM: A stream which only flows for a short time each year in direct response to precipitation events.

FAWNING AREA: Site specific area utilized by mule deer for parturition.

FORAGE: All browse and herbaceous foods that are available to grazing animals.

FORB: Non-woody herbaceous plants neither grass nor resembling grass.

FOREST DEVELOPMENT: A program of silvicultural treatment of perpetuate and improve production of wood and related values. It includes such treatments as site preparation, seeding, planting, and protective measures.

FOREST LAND: Land that is now, or is capable of becoming, at least 10 percent stocked with forest trees and has not been developed for non-timber use.

FOREST MANAGEMENT PROGRAM: Includes timber activity plan and all forest resource related program activity plans.

GRANDFATHERED USE (WILDERNESS): An authorized use taking place on the land as of the date of FLPMA (October 21, 1976).

GRAZING PERMIT: A document authorizing use of the public lands for the purpose of grazing livestock.

GRAZING SYSTEM: A systematic sequence of grazing use and nonuse of an allotment.

HABITAT: The natural environment of a plant or animal.

HIGH INTENSITY FOREST MANAGEMENT LANDS: All commercial forest land that is part of the timber production base for allowable cut calculation in the SYU-15.

INTENSIVE MANAGEMENT: Management using range improvements and scientific techniques, including grazing systems, to maximize sustained yields of animals and forage production.

INTENSIVE TIMBER MANAGEMENT: The practice of converting an unregulated forest into a maintained and managed forest to approach the desired and optimum level of growing stock as rapidly as possible by such practices as precommercial and commercial thinning, large-scale site preparation, planting, brush and hardwood control, fertilization and forest genetic improvements.

INTERIM MANAGEMENT POLICY: The Bureau's management policy for lands under wilderness review. The policy is to continue resource use on lands under wilderness review in a manner that maintains the area's suitability for preservation as wilderness (referred to as the "Nonimpairment" Standard).

KIDDING GROUND: Site-specific area utilized by pronghorn antelope for parturition.

LEK: (See strutting ground.)

LITHIC SCATTER: The occurrence of flaked stone tools and flakes, from isolates to large dense scatters. Generally, workshop areas sometimes associated with quarries.

MIDDEN SITE: Occupation or village site, usually identified by the presence of a cultural midden, house depressions, rock rings, organic materials, or other cultural artifacts and features.

MILLING STATION: An area containing milling implements such as manos, metatas, bedrock mortas, and milling slabs.

MONITORING: Specific studies which evaluate the effectiveness of actions taken toward achieving management objectives.

NATIONAL REGISTER OF HISTORIC PLACES: The official list, established by the Historic Preservation Act of 1966, of the nation's cultural resources worthy of preservation.

NATIONAL REGISTER QUALITY SITE: A cultural resource site eligible for inclusion on the National Register.

NONCOMMERCIAL FOREST LAND: Land which is not capable of yielding at least 20 cubic feet of wood per acre per year of commercial species or land which is capable of producing only noncommercial tree species.

NONFOREST LAND: Land that has been developed for nontimber uses or land that is incapable of being 10 percent stocked with trees.

NONUSE (REGULAR): The authorization by permit to withhold livestock use on the range without loss of preference for future consideration in livestock use of public lands. Expressed in Animal Unit Months.

PERENNIAL: A plant having a life cycle of three or more years.

PERENNIAL STREAM: A stream which flows throughout the year.

PERMITTEE: Holder of a license or permit for grazing of livestock on an allotment.

PETROGLYPH: A figure, design, or indentation carved, abraded, or pecked on a rock.

PICTOGRAPH: A figure or design painted on a rock.

PRECOMMERCIAL THINNING: Removal of surplus trees in a stand before they reach merchantable size.

PREFERENCE: Grazing privileges established following the passage of the Taylor Grazing Act, based on the use of the Federal range during the priority period. The active preference and suspended preference together make up the total grazing preference.

PRIMITIVE AND UNCONFINED RECREATION: Nonmotorized and nondeveloped types of outdoor recreational activities.

PUBLIC LAND: Land administered by the Bureau of Land Management.

QUARRY SITES: Quarry area used by prehistoric/historic peoples.

RANGE CONDITION (ECOLOGICAL): The present state of the vegetation of a range site in relation to the climax (natural potential) plant community for that site. Measured as a percentage of the present plant community that is climax for the range site.

RANGE DEVELOPMENT: Any structure or excavation that facilitates management of range or livestock.

RANGE IMPROVEMENT: Any activity or program on or relating to rangelands which is designed to improve production of forage, change vegetation composition, control patterns of use, provide water, stabilize soil and water conditions, and provide habitat for livestock, wild free-roaming horses and burros, and wildlife. The term includes but is not limited to structures, treatment projects, and use of mechanical means to accomplish the desired result.

RANGELAND SUITABILITY: A measure of an area's ability to be used for livestock grazing using four major criteria (distance to water, degree of slope or other physical barriers, forage production, and watershed condition) which are evaluated independently or in various combinations to arrive at a suitability class.

RANGE SITE: A distinctive kind of rangeland that differs from other kinds of rangeland in its ability to produce a characteristic natural plant community.

RANGE TREND: The direction of change in range condition.

REFORESTATION: Reestablishment of a tree crop on forest land.

REGENERATION: The renewal of a tree crop, by natural or artificial means. Also, the young crop itself.

REST: Removal of grazing on a range area to allow plants to replenish their food reserves. Used in this document to refer to year-long relief from livestock grazing.

RIPARIAN: Situated on or pertaining to the bank of a river, stream, or other body of water. Normally used to refer to the plants of all types that grow rooted in the watertable of streams, ponds, and springs.

ROCK HUNTING BLIND: Rock structure used for hunting by prehistoric peoples.

ROCK RINGS/CIRCLES: Remains of prehistoric structures.

ROCKSHELTER: Any natural shelter between or under standing rocks in which traces of human activity are found.

SCARIFICATION: Disturbance of the upper soil layer by mechanical means in preparing a site for seeding for planting.

SEASON OF USE: That period of time, as designated in planning documents, within which livestock grazing can be authorized.

SENSITIVE PLANT: Those plants which require management consideration under current BLM policy.

SILVICULTURE: The art of producing and tending a forest.

SOIL COMPACTION: The process of increasing the bulk density of the soil through the compression of large voids. Reduction of the air spaces in the soil will result in overland flow of water and surface erosion occurring with less intense storms. Soil compaction can also significantly reduce plant vigor by reducing the gas exchange (CO_2 and O_2) in the root zone, by reducing the transport rate of nutrients through the soil, and by creating a physical impedence to root penetration.

SOLITUDE: (1) The state of being alone or remote from habitations; isolation. (2) A lonely, unfrequented, or secluded place.

STOCKING RATE: The number of animals on a specific area at a specific time, usually expressed in acres/AUM.

STRUTTING GROUND: Small, site-specific area utilized by sage grouse in early spring for elaborate, ritualized courtship displays.

SUBSTANTIALLY UNNOTICEABLE: Refers to something that either is so insignificant as to be only a very minor feature of the overall area or is not distinctly recognizable by the average visitor as being manmade or man-caused because of age, weathering, or biological change. An example of the first would be a few minor dams or abandoned mine buildings that are widely scattered over a large area, so that they are in an inconspicious part of the scene. Serious intrusions of this kind, or many of them, may preclude inclusion of the land in a wilderness study area. (See also "Cumulative Impact", above.) An example of the second would be an old juniper control project that has grown up to a natural appearance, the old fallen trees largely decomposed.

SUSPENDED PREFERENCE: That portion of the grazing preference which is placed in a suspended category because the preference exceeds the available livestock grazing capacity. Same as suspended nonuse.

SUSTAINED YIELD: The achievement and maintenance in perpetuity of a high level annual or regular periodic output of the various renewable resources of the public lands consistent with multiple use. This term is most commonly associated with forest management and the provisions of an undiminished or "even flow" average annual production of wood fiber over decades. It is also applicable to the management of all renewable resources including forage, wildlife, water, recreation or any value that can be managed for renewal and sustained productivity. It is dependent on the application of multiple use management in a way that assumes the maintenance of the land's productivity.

SUSTAINED YIELD UNIT (SYU): A geographic area for which an allowable timber cut is determined, providing for continuous, undiminishing flow of timber at a given intensity of management.

TEMPORARY NONRENEWABLE LICENSE: Authorization of livestock grazing on public lands in excess of active preference on a temporary basis in order to make use of excess forage temporarily or make use of excess forage which will be monitored in preparation for increasing active preference.

THREATENED SPECIES: Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

TIMBER MANAGEMENT PLAN: A plan which deals specifically with the implementation of the approved allowable cut.

TIMBER PRODUCTION BASE: Acres included in the calculation of the allowable cut (see high intensity forest management lands).

TIMBER PRODUCTION CAPABILITY CLASSIFICATION (TPCC): A classification system that identifies the commercial forest land base capable of producing timber on a sustained yield basis.

UNNECESSARY OR UNDUE DEGRADATION: Impacts greater than those that would normally be expected from an activity being accomplished in compliance with current standards and regulations and based on sound practices, including use of the best reasonably available technology.

UNSUITABLE RANGE: An area not suited for livestock grazing because of barrenness, lack of forage or water, unstable soils, or physical barriers such as topography, rock, or dense timber. The area may still have value for wildlife.

UTILIZATION: The amount of vegetation or foliage removed from a plant by grazing or browsing animals. Usually expressed as a percent of the plants total annual weight.

VEGETATION TREATMENT: Vegetation treatment for range will be determined on an activity plan basis. At any site, prescribed burning, mechanical brush/juniper removal, and/or intensive woodcutting or herbicides may be used. Reseeding may be necessary but not in all cases as remnant perennials are available at many sites.

VEGETATION TYPE: A plant community with visually distinguishable characteristics, based upon and named after the apparent dominant plant species.

VISUAL RESOURCE MANAGEMENT (VRM): The planning, design, and implementation of management objectives to provide acceptable levels of visual impacts for all BLM resource management activities.

WATERSHED: The area drained by a principal river or stream system.

WETLANDS: Poorly drained areas, usually having impervious soil, which occur in depressions near the bottom of slopes or on large flats. Wetlands receive water from direct precipitation and overland runoff and may be in contact with the ground water system.

WILDERNESS AREA: (1) An area formally designated by Congress as part of the National Wilderness Preservation System. (2) An area formally designated as part of the State of California's Wilderness Preservation System.

WILDERNESS INVENTORY: An evaluation of the public lands in the form of a written description and map showing those lands that meet the wilderness criteria as established under section 603(a) of FLPMA and section 2(c) of the Wilderness Act, which will be referred to as wilderness study areas (WSAs). See Wilderness Inventory Handbook, dated September 27, 1978.

WILDERNESS NONSUITABILITY: A management recommendation, based on the application of wilderness suitability criteria, that the best use of the resources comprising a Wilderness Study Area would be met without designation of the WSA as a component of the National Wilderness Preservation System, permitting uses which might not necessarily be comparable with wilderness values.

WILDERNESS REPORTING: The process of preparing the report on each wilderness study area and submitting that report to the President and Congress through the Department of the Interior.

WILDERNESS REVIEW PROGRAM: The term used to cover the entire process of wilderness inventory, study, and reporting for the wilderness resource, culminating in recommendations submitted through the Secretary of the Interior and the President to Congress as to the suitability or nonsuitability of each wilderness study area for inclusion in the National Wilderness Preservation System.

WILDERNESS STUDY: The process of analyzing and planning wilderness preservation opportunities along with other resource opportunities within the Bureau's Planning System.

WILDERNESS STUDY AREA (WSA): Roadless areas of 5,000 acres or more and roadless islands of public lands identified as having wilderness characteristics described in the Wilderness Act of 1964.

WILDERNESS SUITABILITY: A management recommendation, based on the application of wilderness suitability criteria, that the best use of the resources comprising a Wilderness Study Area would be designation of the WSA as a component of the National Wilderness Preservation System.

WOODLAND TYPE: Areas with at least a ten percent canopy cover of woody plants, primarily juniper but some oak and pine. Woodlands may provide herbaceous forage in the understory for livestock grazing.

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REFERENCES

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Appendices

Appendix A

METHODOLOGY FOR DETERMINATION OF RANGE CONDITION

Range condition is defined as the present state of vegetation of a range site in relation to the climax (natural potential) plant community for that site. It is an expression of the relative degree to which the kinds, proportions, and amounts of plants in a plant community resemble that of the climax plant community for the site.

The purpose of determining range condition is to provide a basis for predicting the extent and direction of changes that can result in the plant community because of specific treatment or management.

In the field, the present plant community was described and its quantities by species were estimated as a percentage figure. The percentages were totaled to indicate the community's relationship to the climax or potential for the site. The site and its respective rating could fall between 0 and 100, depending on how closely the plant community resembled the climax plant community for the range site.

Four classes are used to express the degree to which the composition of the present plant community reflects that of the climax:

Range Condition Class	Percent of Present Range Site that is Climax
Poor	0 - 25
Fair	26 - 50
Good	51 - 75
Excellent	76 - 100

Basically, the more diverse a range site is, the higher the condition rating.

APPENDIX B

QUESTIONS AND ANSWERS ON THE ASSET MANAGEMENT PROGRAM IN CALIFORNIA

1. WHY IS PUBLIC LAND MANAGED BY THE BUREAU OF LAND MANAGEMENT (BLM) BEING SOLD?

   Sometimes the sale of public land is good business practice. Business and households do not retain items they do not need, and the Government should not either. Better management of land will benefit Americans by:

   a. Gaining a higher and better use for some surplus land...by selling those assets surplus to the Government's needs.

   b. Cutting the cost of Government by eliminating unnecessary management.

   c. Paying part of the national debt using sale revenues.

2. WHAT BLM LANDS IN CALIFORNIA WILL NOT BE SOLD?

   Lands in the following categories will NOT be considered for sale: the National Park System, National Wildlife Refuge System, National Wilderness Preservation System, Wilderness Study Areas, Indian Trust Lands, Wild Horse Preserves, Wild and Scenic Rivers System, Natural or Research Natural Areas, Designated Areas of Critical Environmental Concern, Designated Natural History or Cultural Resource Areas, and Designated Areas with National Mineral/Economic Significance.

3. WHAT TYPE OF PUBLIC LANDS WILL BE SOLD?

   Public lands to be sold by BLM are vacant, unimproved land tracts. These lands are identified for disposal through land use planning and public involvement as prescribed by law. The types of land being reviewed for sale are:

   a. Land in or near population centers that can be used for community expansion.

   b. Isolated or scattered land tracts that are expensive and difficult for the BLM to manage.

   c. Land whose appropriate use is agricultural, commercial, or industrial development by non-Federal entities.

   d. Other types of land identified for disposal.

4. WHAT WILL THESE LANDS COST?

The lands proposed for disposal will be sold at fair market value.

5. WHAT ABOUT FREE PUBLIC LANDS IN CALIFORNIA?

There is no free public land in California. If you have received information to this effect from other sources, this is incorrect. No free public land exists in California. The Homesteading Act was repealed in 1976.

6. HOW MUCH BLM LAND WILL BE SOLD IN CALIFORNIA?

In fiscal year 1983 approximately 5,500 acres will be proposed for sale. Another 330,000 acres have been tentatively identified for sale in future years.

7. WHAT ABOUT FEDERAL LAND NOT MANAGED BY BLM?

Other Federal land management agencies may consider selling excess land under their jurisdiction. Those agencies should be contacted directly and can be found in your local telephone directory.

8. HOW ARE SPECIFIC TRACTS OF PUBLIC LAND CHOSEN FOR PUBLIC SALE?

The BLM is required by the Federal Land Policy and Management Act of 1976 to follow prescribed procedures during all management actions including disposal of BLM-administered land. The requirements are:

a. Development of land use plan.

b. Public involvement prior to final decisions.

c. Advance notification of State and local Government officials before selling or disposing of BLM land.

d. General consistency with State and local land use plans and programs.

9. WHO CAN BUY PUBLIC LANDS IDENTIFIED FOR SALE?

Any citizen.

10. WHERE DO I WRITE FOR SALE INFORMATION ON PUBLIC LANDS MANAGED BY BLM IN STATES OTHER THAN CALIFORNIA?

Alaska State Office
Bureau of Land Management
701 "C" St. Box 13
Anchorage, Alaska 99513

Colorado State Office
(Kansas)
Bureau of Land Management
1037 20th Street
Denver, Colorado 80202

Idaho State Office
Bureau of Land Management
Federal Building, Rm 398
P. O. Box 042
Boise, Idaho 83724

Montana State Office
(N & S Dakota)
Bureau of Land Management
Granite Tower
P. O. Box 30157
Billings, Montana 59017

Eastern States Office
(All Other States)
Bureau of Land Management
350 South Pickett Street
Alexandria, VA 22304

Wyoming State Office
(Nebraska)
Bureau of Land Management
Joseph C. O'Mahoney Federal Center
P. O. Box 1828
Cheyenne, Wyoming 82001

Arizona State Office
Bureau of Land Management
2400 Valley Bank Center
Phoenix, Arizona 85073

Nevada State Office
Bureau of Land Management
Federal Building, Rm 3008
300 Booth Street
Reno, Nevada 89509

Utah State Office
Bureau of Land Management
University Club Building
136 East South Temple
Salt Lake City, Utah 84111

New Mexico State Office
(Oklahoma)
Bureau of Land Management
U. S. Post Office and
Federal Building
P. O. Box 1449
Sante Fe, New Mexico 87501

Oregon State Office
(Washington)
Bureau of Land Management
729 N. E. Oregon Street
P. O. Box 2965
Portland, Oregon 97208

11. WHAT AUTHORITY DOES BLM HAVE TO SELL PUBLIC LAND?

Section 203 and 206 of the Federal Land Policy and Management Act of 1976 is the primary authority the BLM has to sell public land.

12. IS THE ASSET MANAGEMENT PROGRAM MORE THAN THE SALE OF LAND TO THE PUBLIC?

Yes. Although a major thrust is the sale of lands this does not preclude disposal of land within other legislative mandates such as exchanges, interagency adjustments, etc.

13. HOW WILL I KNOW ABOUT FUTURE PUBLIC LAND SALES IN CALIFORNIA?

The easiest way to receive information about public land sales is to contact the BLM office nearest the lands that interest you. Another way is to stay current with your local news media (newspapers, radio, TV) which will carry the news on lands sales. Local BLM offices can provide information about sale schedules and bidding characteristics when this information is available.

Bakersfield District Office
800 Truxtun Ave., Rm 311
Bakersfield, CA 93301

Ukiah District Office
P. O. Box 940, 555 Leslie Street
Ukiah, CA 95482

California Desert District Office
1695 Spruce Street
Riverside, CA 92507

Susanville District Office
P. O. Box 1090, 705 Hall Street
Susanville, CA 96130

FACT SHEET ON THE
CALIFORNIA ASSET MANAGEMENT
SALES PROGRAM

1. WILL LAND SALES BE ADVERTISED?

   Yes. Local newspapers and regional realty trade journals will advertise sales. Press releases will be mailed to newspapers, radio stations, and TV stations throughout California.

2. HOW DO I PAY BLM FOR A TRACT OF LAND?

   There will be a requirement of 20% of purchase price immediately and the remainder due in 30 days. You are to obtain your own financing to close the sale in 30 days. The sale notice, when issued, will be very specific about terms.

3. WHAT WILL THE PUBLIC LAND COST?

   The Federal Land Policy and Management Act requires that public land be sold at fair market value. Lands that do not get fair market bids will be retained by BLM.

4. WILL LAND SALES BE HANDLED BY WRITTEN OR ORAL BIDS?

   Both methods are being considered. The method of bidding will be announced in the sale notice.

5. WILL SOME OF THE LAND BE FREE?

   No free public land is available in California. The Homestead Act was repealed in 1976.

6. WHAT HAPPENS TO LAND TRACTS THAT ARE PUT UP FOR SALE AND NO BIDS ARE RECEIVED?

   The land will remain under the management of the BLM and most likely put up for sale in later years or exchanged.

7. WILL EACH TRACT OF LAND HAVE AN APPRAISED FINANCIAL VALUE?

   Yes. Land will be appraised to sell at prices prevailing with lands selling in the area.

8. WILL THE APPRAISED VALUE BE MADE PUBLIC PRIOR TO THE SALE?

Under present practice the appraised value is made available on each tract when the sale notice is issued.

9. WHAT RESTRICTIONS OR RESERVATIONS WILL BE MADE ON SOME TRACTS OF LAND AND WILL THEY BE KNOWN PRIOR TO SALE?

All restriction such as grazing rights will apply and existing permits will be honored. All mineral rights are reserved to the U. S. Government except in those instances (a) where there are no known mineral values in the land, or (b) where the reservation of the mineral rights in the United States is interfering with or precluding appropriate nonmineral development of the land and that such development is a more beneficial use of the land than mineral development. All restrictions will be announced prior to sale.

10. IF I BUY A SALE TRACT, WILL I BE ABLE TO MINE THE SUBSURFACE?

No, all mineral rights will be reserved to the United States. The potential surface owner will not have exclusive use of the subsurface to mine for a valuable mineral or to develop the tract for oil and gas or geothermal production. These activities will be regulated by the appropriate public land laws and mineral leasing laws. Under the Mineral Conveyance Regulations, the surface owner may apply to the U. S. Government to purchase the mineral rights. If no valuable minerals are present, the U. S. Government may sell the mineral rights for administrative costs.

11. WILL PUBLIC LANDS EVER BE SOLD AT LESS THAN FAIR MARKET VALUE?

All public lands will be sold at fair market value.

12. HOW IS FAIR MARKET VALUE DETERMINED?

It will be determined by other comparable land sale transactions in the vicinity.

13. MAY I WORK THROUGH A REAL ESTATE AGENT OR AN ATTORNEY IN BUYING TRACTS OF PUBLIC LAND?

Yes. Real estate agents or attorneys are welcome, but fees for their services are the buyer's responsibility.

14. WHEN WILL THE FIRST SALE TAKE PLACE?

The first sale in 1983 is expected this summer. Newspapers and other media outlets will provide public notice.

15. CAN YOU PUT ME ON A MAILING LIST AND INFORM ME OF PUBLIC LAND FOR SALE?

The BLM is not maintaining mailing lists and cannot accept legal responsibility for informing potentially thousands of people directly of public land sales. However, press releases announcing sales will be carried in the news media throughout the state. More specific information can then be obtained by visiting or writing your local BLM office.

16. WILL SOME PUBLIC LANDS BE SOLD BY MODIFIED COMPETITIVE BIDDING TO ADJACENT LANDOWNERS?

Some parcels may be sold to adjacent landowners:

(1) to avoid jeopardizing an existing use of adjacent land;
(2) to assure compatibility of the possible uses of the sale lands;
(3) to avoid dislocation of existing users.

Such a sale will be identified in the public sale notice.

17. WILL GRAZING PRIVILEGES BE PROTECTED IF A TRACT IS SOLD?

Ranchers will most likely be given a full two year's notice that the BLM intends to offer the property for sale and their lease or permit will be cancelled on the sale date. The only exception is leasees outside grazing districts with less than two years remaining on the lease. These leasees will be notified that their leases will not be renewed.

Ranchers with permits or leases having more than two years remaining at the time the notice is given will be further protected. A provision in the title or the sale conditions will require the new owner to allow continued grazing by the current operator for the full remaining term of the lease or permit. Where ranchers have made authorized improvements on the land sold, the new owner will be required to compensate the rancher for his interest.

Bureau of Land Management
Library
Bldg. 50, Denver Federal Center
Denver, CO 80225

Form 1279–3
(June 1984)

BORROWER

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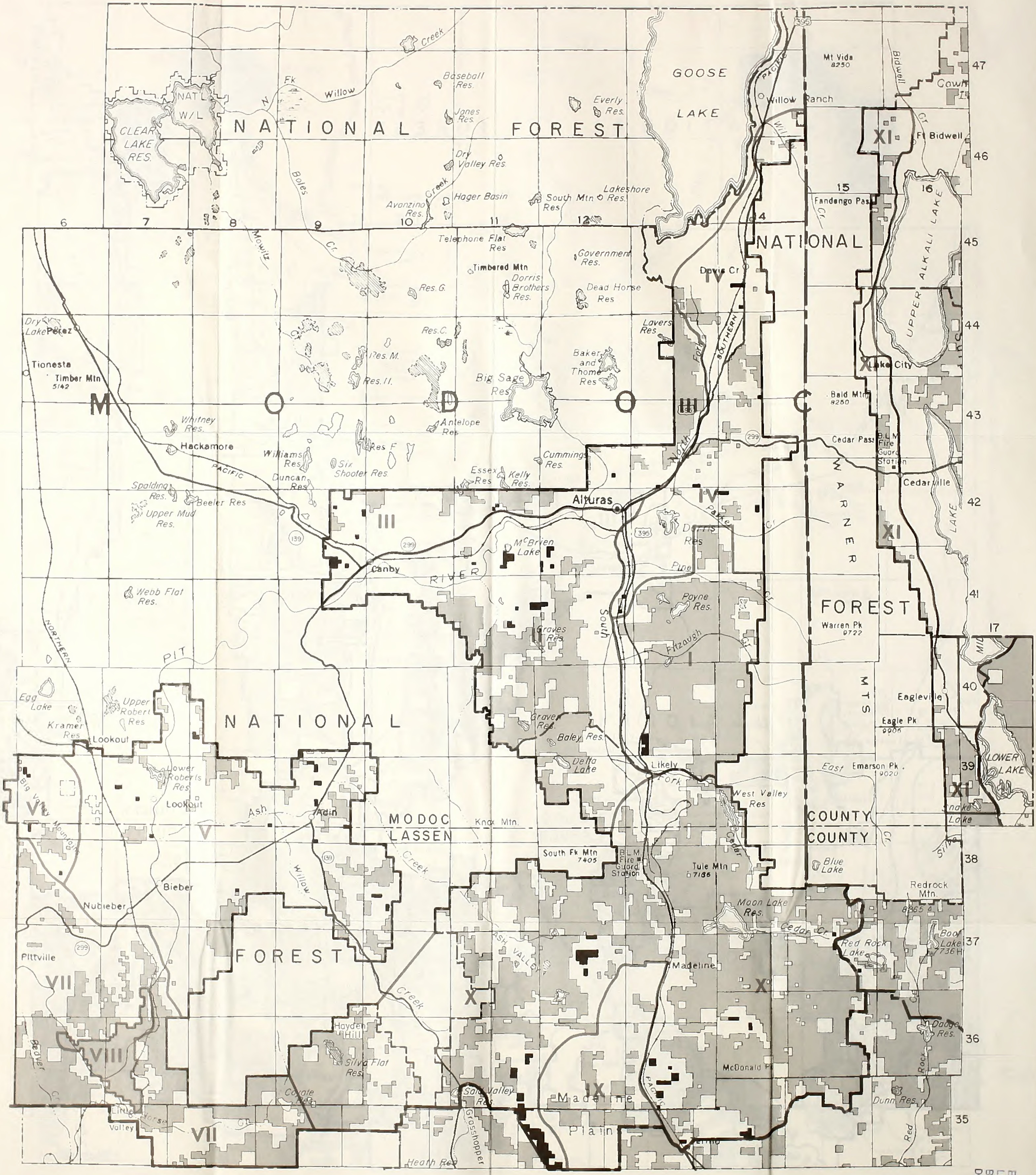
Proposed resource m
plan for the Altur

DATE LOANED	BORROWER

USDI – BLM



Legend

— Management Area Boundary

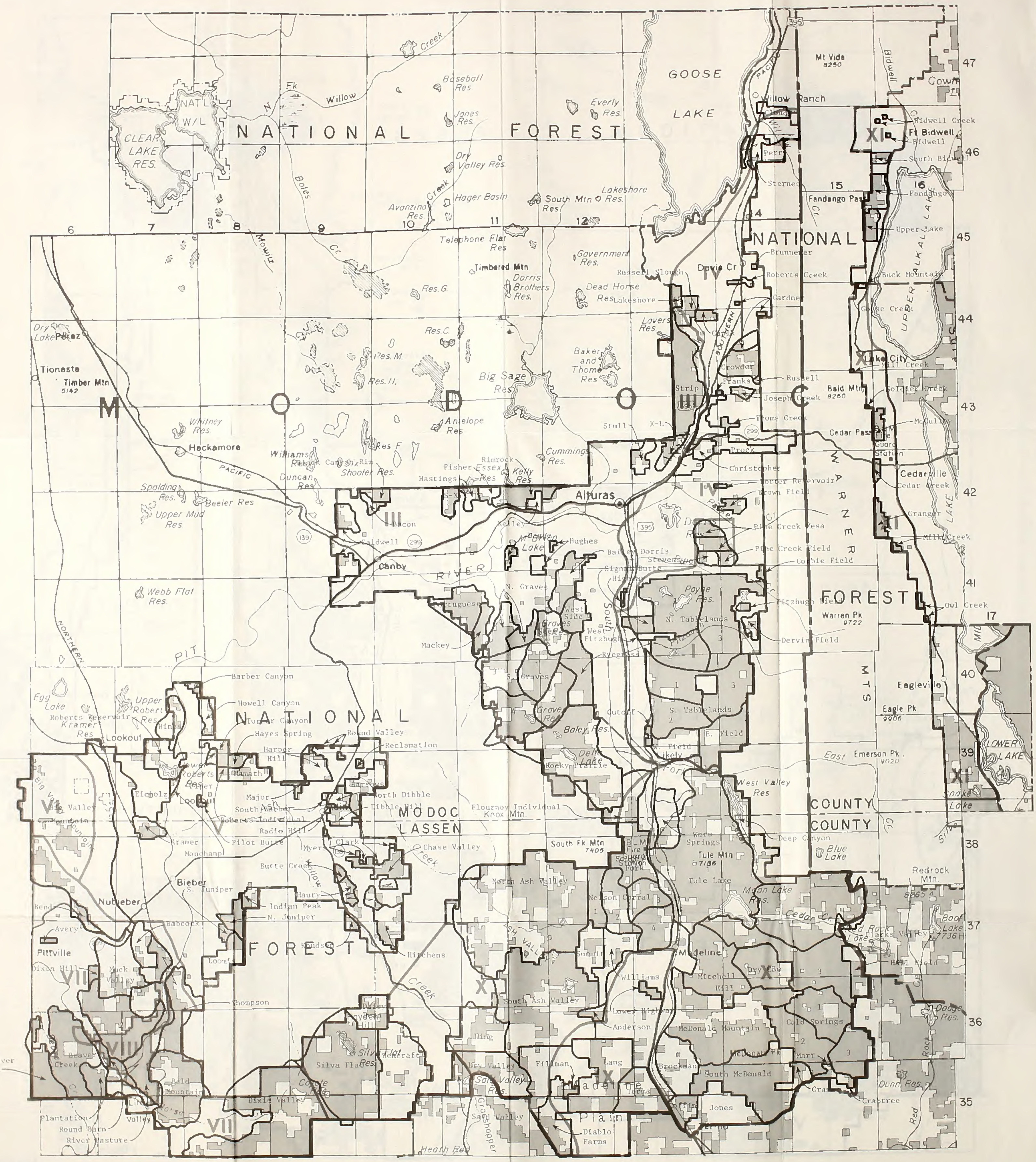
▬ Alternative III

Map 3-10

ALTURAS PLANNING AREA

LANDS FOR POTENTIAL DISPOSAL

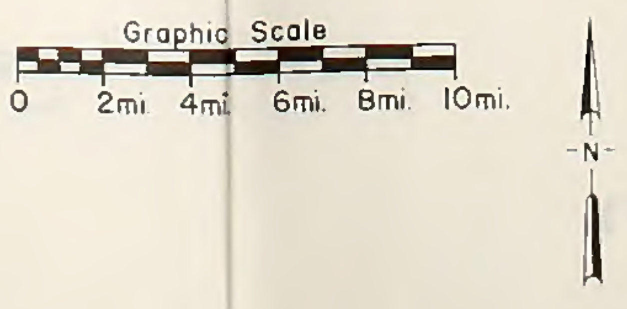
Bureau of Land Management
Library
Bldg. 50, Denver Federal Center
Denver, CO 80225



Legend

— **Management Area Boundary**

▭ Name **Grazing Allotment Areas**



Map 3-11

ALTURAS PLANNING AREA

GRAZING ALLOTMENTS